

**PROMISE<sup>®</sup>**  
**TECHNOLOGY, INC.**

***ConnectStor II***<sup>TM</sup>



# ***User Manual***

Version 13.4



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## **Important data protection information**

You should back up all data before installing any drive controller or storage peripheral. Promise is not responsible for any loss of data resulting from the use, disuse or misuse of this or any other Promise product.

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## **Hard Disk Drive Selection Warning**

This product of Hard Disk Drives are rated, input voltage 5/12 V DC, loading current 0.6/0.9 A maximum. TUV approved Hard Disk Drive is preferred for TUV compliance.

Hard Disk drive – Optional, compliant to UL Category NWGQ2, generic, two provided, input voltage rated 5V DC/0.6A, 12V DC/0.9A maximum, minimum clearance from non-insulated live parts 4.0 mm.

## **Power Cord Warning**

For the power supply of this equipment, an approved power cord must be used. For a rated current up to 2A and an equipment weight more than 3 kg (6.6 pounds), a power cord not lighter than H05VV-F, 3G, 0.75mm<sup>2</sup>, must be used.

## **Lithium-Ion Battery Warning**

CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer’s instructions.

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## ***Radio Frequency Interference Statement***

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and, if not installed and used in accordance with the instruction may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult Promise Technology, Inc. or an experienced radio/TV technician for help.

This device complies with Part 5 of the FCC Rules. Operation is subject to the following conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**NOTE:** Only digital device equipment CERTIFIED CLASS B should be attached to this equipment and that must have shielded cables.

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## Standard Conventions

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**NOTE:** *Supplementary material containing important information*

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### **Screen messages:**

Type of text	Display
Normal	Looks like this
Messages appearing on screen	<b>Messages appearing on screen</b>
Typed commands or text	<b>"Text that you type"</b>
Values you replace with type	<b><i>"Values that you replace"</i></b>
File, path, and share names	<i>Filenames</i>

# Chapter 1: Introduction

Thank you for purchasing Promise Technology's ConnectStor network attached storage (NAS) subsystem. ConnectStor II takes full advantage of Promise Technology's leadership in ATA RAID product design by providing RAID 0, 1 support for the latest low-cost Ultra ATA/100 hard drives.

ConnectStor II offers users the ability to provide continuous data protection using two-drive RAID 1 mirroring or to build increased storage capacity using RAID 0 striping of two drives. Either way, users take advantage of the increased economy, performance, and capacity of Ultra ATA drives for their particular network environment.

ConnectStor II houses file sharing protocols for Microsoft® Windows® 95, 98, NT4, 2000, Me, XP; and Linux NFS 2.0/3.0, making it virtually a plug and work device with most major network operating systems.

Best of all, you can easily manage and configure ConnectStor II from most major web-based browsers (see Specifications). The password-protected management utility lets users and/or network administrators customize ConnectStor II for direct connection to UNIX (NFS), HTTP and SMB/CIFS (Windows) network protocols and includes a full suite of reporting and monitoring tools.

## **Key Features**

The following are key features of the Promise ConnectStor II:

### ***Drive Types***

- Supports up to two 3.5-inch IDE drives (Ultra ATA, DMA, and EIDE)
- Supports Ultra ATA/133, Ultra ATA/100, Ultra ATA/66, Ultra ATA/33, EIDE, and Fast ATA-2 speeds (UDMA 5/4/3/2/1/0 and DMA 2/1/0, respectively)

### ***Status Indicators***

- Power Status LED shows power on/off and system status
- Drive Activity LED displays drive activity (reads or writes)
- Network Activity LED displays individual network requests

### ***Ultra ATA/100 Support***

- 100MB/sec burst data transfers of Ultra ATA/133/100 drives
- Implements high-speed CRC error-checking

### ***RAID 0 (Striping) Functions***

- Links to two drives as a single large capacity drive volume
- With two drives, doubles sustained data transfer rate to speed up large file transfers
- Does not offer fault protection

### ***RAID 1 (Mirroring) Functions***

- Sends identical data to two installed drives
- Maintains access to data if a single drive fails
- Rebuilds data to replacement drive automatically

### ***Network Support***

- Built-in 10/100Mb/s Ethernet controller for high data transfers
- Supports popular network protocols: TCP/IP, NFS, SMB/CIFS

### ***Configuration & Monitoring***

- Easy setup and monitoring of ConnectStor II unit via web browser (requires MS Internet Explorer 5 or higher, Netscape Navigator 4 or higher)
- IPassign™ utility to manually assign IP address IF network does not support automatic IP address assignment (DHCP/BOOTP)



## ***Specifications***

### **Interface**

- Fits most 3.5-inch form factor Ultra ATA hard disk drives (ConnectStor II model may or may not include installed hard drives)
- Standard ATA/IDE interface
- Built-in power, network activity, and drive activity LEDs

### **Enclosure**

- Dedicated cooling fan
- 10/100BaseT connector
- Serial port (COM2) for optional use of APC-compatible Uninterruptible Power Supply (UPS)
- Power on/off switch
- Internal automatic 110/220 power selector
- Vertically (standard) or horizontal mounting

### **Physical/Environmental**

#### ***Dimensions***

- Enclosure: 8.5 x 5.75 x 1.625 inches (21.59 x 14.605 x 4.128 cm)

#### ***Operating Temperature***

- 32°F to 113°F (0°C to 45°C)

#### ***Relative Humidity***

- 10% to 95% (non-condensing)

#### ***Warranty***

- Two years limited parts and labor

# *NOTES*

## Chapter 2: Getting Started

This section is designed to help prepare ConnectStor II for installation into your network. Please read through this chapter carefully before attempting to install ConnectStor II.

Your ConnectStor II network attached storage system comes with all of the hardware and software you need to connect it to your network quickly. It works on a 10Base-T/100Base-TX Ethernet network.

Getting the ConnectStor II storage system up and running consists of the following steps:

- Unpacking the ConnectStor II unit
- Installing Hard Drives
- Install ConnectStor II mounting hardware and cables
- Power on ConnectStor II unit
- Await hard drive initialization and bootup
- Assign IP address to unit (if necessary)
- Open web browser
- Customize ConnectStor II folders and/or user permissions
- Map individual PCs to ConnectStor II unit
- Begin saving and retrieving files to ConnectStor II

### ***Necessary Equipment for Installation***

You will need the following items before you can install and use your ConnectStor II network attached storage system:

- A 10Base-T/100Base-TX Ethernet network.
- A Windows-based personal computer or workstation with a CD-ROM drive, a 1.4 MB floppy disk drive and a connection to your network. (Systems without a floppy disk drive may download the installation utilities from the Promise Technology website at <http://www.promise.com>.)
- A network hub, switch or router with a free port (for network connection) OR a crossover cable if you are connecting ConnectStor II directly to a single computer.
- An available IP (Internet Protocol) address to be used by the ConnectStor II unit (this may be automatically assigned by some networks or you may need to ask your network administrator).
- The netmask address used on your network (this may be automatically assigned by some networks or you may need to ask your network administrator).
- An assigned gateway address, if available (may be automatically assigned by some networks or you may need to ask your network administrator).

For convenience, record your ConnectStor II network attached storage system information as described below:

**Table 1: ConnectStor II System Information**

Information Type	Location
TLA Number	Back of ConnectStor II unit
Serial Number	Back of ConnectStor II unit
IP address for ConnectStor II	Obtain from system administrator
Password	Initial default is “password”
Subnet Mask Address	Obtain from system administrator
Gateway Address <sup>1</sup>	Obtain from system administrator
Workgroup or Domain Name	Get from system administrator
Ethernet Address <sup>2</sup>	Back of ConnectStor II unit

---

<sup>1</sup> Required for Internet or Intranet access.

<sup>2</sup> The Ethernet (MAC or hardware) address format is 00-01-55-XX-YY-ZZ, where X, Y and Z represent a unique set of numbers.

## ***Unpacking ConnectStor II***

The ConnectStor II package should contain the following items:

- ConnectStor II enclosure
- Two (2) mounting foot brackets for vertical footprint
- Four (4) rubber feet for horizontal footprint
- ConnectStor II User's Guide
- (1) Power cord
- (1) Category-5 Ethernet cable with RJ-45 connectors

If any of the contents are missing or damaged, please contact your dealer or distributor immediately.

Please take a moment to visit the Promise website ([www.promise.com/warranty](http://www.promise.com/warranty)) for online registration of your ConnectStor II.

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***WARNING:*** *ConnectStor II, like every other type of PC, is subject to static electricity. Be sure that you are properly grounded (Promise recommends that you wear an anti-static strap, or place a free hand on a grounded object), before installing.*

---

## ***Installing Hard Drives***

ConnectStor II is designed for rapid user installation of two (or one) unformatted Ultra ATA/100 hard drives. Check each drive to insure that they are jumpered correctly as "master" or "single" drive (see manufacturer's instructions and/or directions label on the drive).

If you install only one hard drive, ConnectStor II will automatically format it as a single-disk RAID 0 array. If you install two hard drives, ConnectStor II will automatically format them as a two-disk RAID 1 array.

You may later convert the RAID 1 two-disk array to a RAID 0 two-disk array (see page 47).

---

***CAUTION:*** *You cannot install one hard drive now and add another hard drive later. If you intend to use two hard drives with your ConnectStor II, install both of them now*

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***NOTE:*** *Promise recommends use of identical drives for best performance and compatibility.*

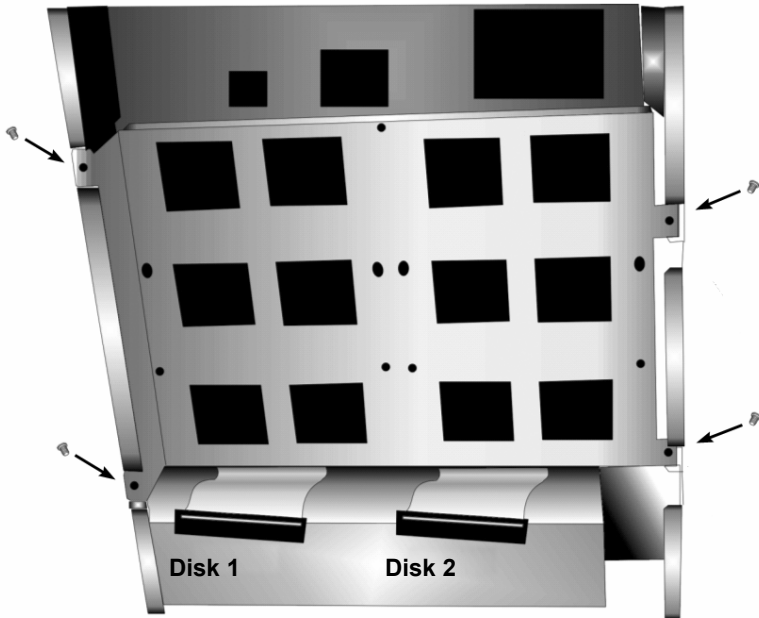
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1. Unscrew the mounting screws that secure the cover of your ConnectStor II unit as shown below:



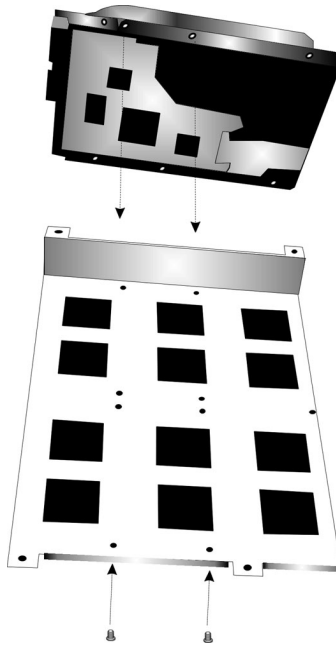
2. Unscrew and remove the drive mounting tray from the ConnectStor II chassis as shown below:

**Top of ConnectStor II Unit**



**Bottom of ConnectStor II Unit**

3. Position drive(s) over screw holes on platter. Secure using screws that go up underneath and through the mounting tray and into the four screw holes on the bottom of each drive as shown below:



4. Connect ATA cables and power supply connectors to each drive
5. Re-secure drive mounting tray to ConnectStor II with screws.
6. Replace the cover to your ConnectStor II unit and replace screws.
7. Power on ConnectStor II.

The first time the unit powers on with new drive(s), ConnectStor II will recognize the unformatted drive(s). ConnectStor II will format the drive(s) and create a default RAID 0 array if there is only one drive present or RAID 1 array if there are two drives.

---

**NOTE:** A Supervisor can change the default RAID 1 array to a two-drive RAID 0 array AFTER this initial configuration is complete (see changing RAID setting on page 47).

---



## ***Connecting the ConnectStor II Hardware***

### **Install the Mounting Foot Brackets**

The ConnectStor II unit may be mounted upright, or it may be mounted on its side.

To mount upright, slip the two clip-on brackets on to the bottom of the unit. Position one bracket about one-inch (2.5 cm) from the front of the unit. Place the other mounting foot the same distance from the back of the unit.

To mount the ConnectStor II on its side, attach the four rubber feet (buttons) to the side of the unit.



### **Connect the Network Cable**

Connect one end of the (supplied) network cable to the LAN (Ethernet) connector located on the back of the ConnectStor II unit. Connect the other end of the network cable to a network hub.

## Connect the Power Cord

Connect one end of the power cord to the AC Power connector located on the back of the ConnectStor II unit. Connect the other end of the power cable to a power source or uninterruptible power supply.

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**NOTE:** *The ConnectStor II unit automatically recognizes and switches to proper 110V or 220V settings.*

---

## Power Switch

Switch on the power to the ConnectStor II unit.

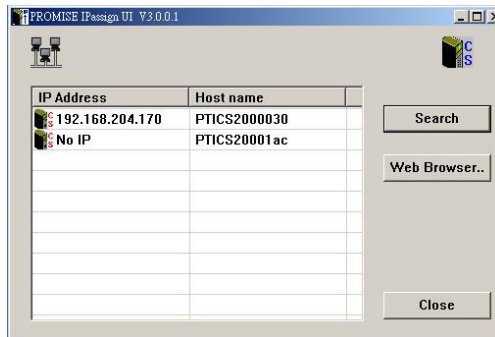
## Assigning a Static IP Address

If your network has a DHCP (Dynamic Host Configuration Protocol) server, it will automatically assign a dynamic IP address to your ConnectStor II. Proceed to Chapter 3.

If your network does NOT automatically assign IP addresses to newly-attached network-ready devices using a DHCP server, you **MUST** perform the following steps in order to manually assign a unique, static IP address from a Windows-based PC:

1. Insert the CD to your CD-ROM drive.
2. Double-click the CD-ROM button.
3. Open the directory and execute the program: IPassign version 3.0.0.1.

The IPassign dialog box displays all ConnectStor II units it finds on the network (below).



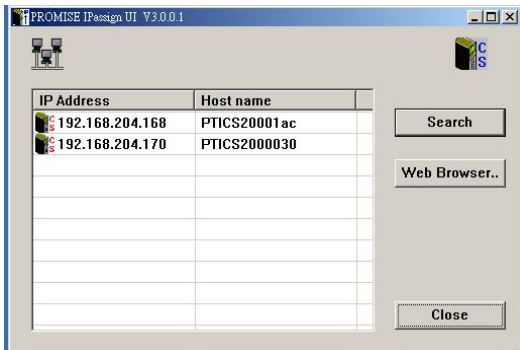
4. Click the **No IP** entry, then click the Search button. The dialog box will show as below.



5. Type the IP address you want to use in the **IP Address:** field (above).
6. Type 255.255.255.0 in the **Subnet Mask:** field.
7. Type the IP address of your Gateway server in the **Gateway:** field.
8. Click the **Assign IP** button.

**CAUTION:** Check and recheck your entries in this menu. Incorrect entries will prevent you from seeing the ConnectStor II on your system.

After you click the Assign IP button, IPassign will verify that your settings are correct and the requested IP address is not already in use. If everything is correct, the IPassign dialog box will display the new IP address information (below).



**NOTE:** If there is no IP address assigned within ten minutes, either through the APassign utility or the DHCP server, the ConnectStor II will set its own IP address to 192.168.204.204.

9. Choose an IP address and click the Web Browser button. The ConnectStor II screen will display (below).



The image shows the ConnectStor II System Administration Manager login screen. At the top, there is a header bar with the following elements from left to right: the 'PROMISE TECHNOLOGY, INC.' logo, the 'ConnectStor II' brand name with a red line graphic underneath, and two circular logos on the right that say 'Powered By PROMISE' and 'ATA RAID.' Below the header, the main content area has a light blue background. It features the text 'System Administration Manager' in a large font, followed by 'version 1.0.0.13' in a smaller font. Below this, there are two input fields: 'User Name:' with the text 'supervisor' entered, and 'Password:' with an empty field. At the bottom of the form, there are two buttons: 'Login' and 'Reset'.

This verifies the successful assignment of a Static IP address.

## Chapter 3: Configuration

This section is designed to guide you in connecting to and using ConnectStor II's built-in, browser-based Configuration utility, the System Administration Manager.

Generally this utility will be used by a network administrator or individual responsible for customizing ConnectStor II's default internal file system and user rights settings for saving and retrieving files. On ConnectStor II, this individual is known as the "supervisor".

The System Administration Manager also controls hardware settings for system password access, date/time stamp, email notification for specific events, use of uninterruptible power supplies, operating system language compatibility.

Finally, the utility monitors ConnectStor II's hardware status and drive array status. Since most settings are immediately executed, please review this section in its entirety prior to using the utility.

---

**NOTE:** *If you wish to configure ConnectStor II for use with UNIX-based or Linux-based servers, you must first connect to ConnectStor II through a PC using an Internet browser, then select the **UNIX (NFS)** option to specify the Host Name and Export IP address information for your UNIX server. See page 39 for instructions.*

---

## Logging In

1. From any Internet-connected Windows or Linux computer, open your browser of choice (Internet Explorer v.5.0 or later, or Netscape Navigator 4.0 or later).
2. In the address bar of your browser, input the following:

*http://x.x.x.x/admin/*

where x.x.x.x is the IP address assigned to ConnectStor II as described in the previous chapter

3. Press the **Enter** key.

---

**NOTE:** Remember multiple ConnectStor II units may exist on a single LAN. Make sure you are using the correct IP address of the ConnectStor II unit that you wish to configure.

---

4. Once the ConnectStor II unit corresponding to the IP address is found, the following login screen should appear in your browser:



The image shows a web browser window displaying the ConnectStor II System Administration Manager login screen. At the top, there is a header bar with the 'PROMISE TECHNOLOGY, INC.' logo on the left, the 'ConnectStor II' logo in the center, and 'Powered By PROMISE' and 'ATA RAID.' logos on the right. Below the header, the text 'System Administration Manager' is centered, followed by 'version 1.0.0.13'. The main area contains two input fields: 'User Name:' with the text 'supervisor' entered, and 'Password:' with an empty field. At the bottom, there are two buttons: 'Login' and 'Reset'.

5. The default User Name **supervisor** will appear in the name field. Enter the correct password in the password field. The default administrative password is **password**.
6. Click the **Login** button to enter or **Reset** button to cancel.

---

**CAUTION:** Because the ConnectStor II's password default is the same for all units, Promise recommends that the supervisor change the password as soon as possible after installation. See *Modifying User Information* on page 31 for instructions.

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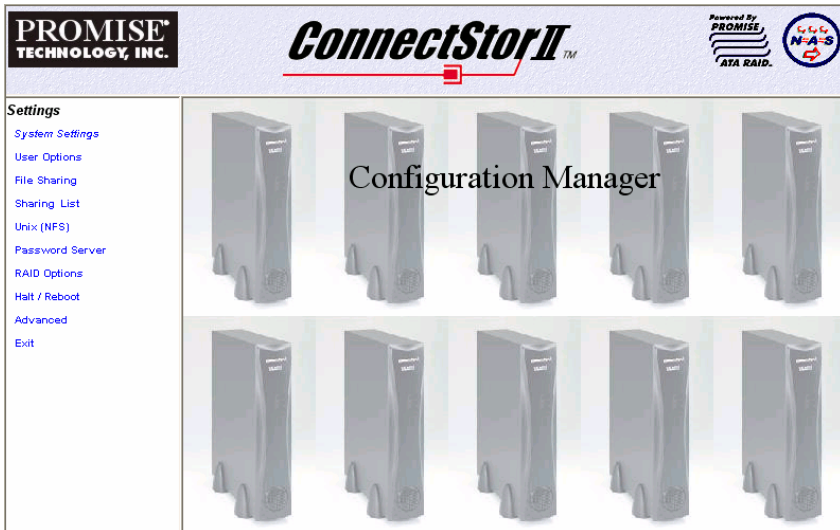
---

**NOTE:** For future reference, the version number above the User Name field is the firmware version number of your ConnectStor II unit.

---

## About ConnectStor II's Configuration Menu

When the user/supervisor enters the Configuration Utility, the following screen should appear below:



The Configuration Utility is divided into three main panels. The top panel simply identifies the unit. Clicking the Promise Technology, Inc. logo links the user to the [www.promise.com](http://www.promise.com) website.

The left side panel contains the selection menu that accesses the different administrative control settings as follows:

**System Settings:** allows supervisor to change network and support settings for hardware and operating systems and monitor system status

**User Options:** allows supervisor to create, delete, or modify individual user rights to access the unit and protect shared data folders

**File Sharing:** allows supervisor to create, delete, or modify shared data folders

**Sharing List:** allows users and supervisor to view shared and user's folders, and information about them

**UNIX (NFS):** sets up support for UNIX/Linux operating systems

**Password Server:** enables/disables support for remote password server for added file protection

**RAID Options:** shows status of RAID array and allows changing selection of RAID level

**Halt/Reboot:** lets supervisor halt or reboot the ConnectStor II unit

**Advanced:** lets supervisor update internal operating system software, return system to default settings, or clone the user settings from one ConnectStor II to additional units

**Exit:** logs user/supervisor out of Configuration utility and returns to logon window.

All entry fields and status displays are shown in the large information panel at lower right.



## Changing or Viewing System Settings

Selecting **System Settings** from the Configuration Menu will display several system-related options for the user/supervisor as follows:

- Network Settings
- Date/Time Change
- UPS Options
- E-Mail Options
- IP Assignment
- Languages
- Operating Status

## Changing Network Settings

The default selection under System Settings is **Network Settings**, which displays the following screen in the information panel:

Server Name : PTICS2000532

Server Description : ConnectStor II

IP Address : 192.168.1.146

NetMask : 255.255.255.0

Broadcast : 192.168.1.255

Gateway : 192.168.1.1

WorkGroup/Domain : WorkGroup

☐ Enable WINS Server :

**WARNING**

When you change the IPAddress, NetMask or Gateway, if with a DHCP Server at the network, must set the IP Assignment to Static IP Address.

---

**CAUTION:** If there is a DHCP Server on the network, you must set the IP Assignment to Static IP address before you change the IPAddress, NetMask or Gateway. See page 26.

---

You would change these settings if configuring ConnectStor II for use by a specific department or workgroup that operates within a larger local area network. The numbers shown above are merely examples. Consult your network administrator as to the correct information to input in the appropriate fields as follows:

**Server Name:** allows the user to change the network name of the device as it appears on the network

**Server Description:** allows user to provide a brief description of the unit and content it may contain (such as an Accounting Data Server)

**IP Address:** allows user to set fixed IP address for the unit if NOT using a DHCP server to assign the address dynamically

**NetMask:** typically the default address (255.255.255.0) unless you're creating a subnet (a logical division of a physical network)

**Broadcast:** the address used to send data to all host servers on a particular logical network.

**Gateway:** address that links different parts of a network together (default is 0.0.0.0)

**Workgroup/Domain:** inputting a specific workgroup or domain name.

**Enable WINS Server:** checking the Enable box and entering the address of the WINS Server (may not be available on your network) eliminates the need for network broadcast requests to resolve computer names and IP addresses

1. When you have completed inputting information, click on the **Submit** button. A confirmation window will appear.
2. Click **OK** button to confirm.

## Changing Date/Time Settings

For purposes of tracking ConnectStor II statistics such as uptime and events, the unit uses an internal clock. After selecting **Date/Time Change** from the Configuration side menu, the following will appear in the main information panel:

Time Zone : GMT-7:00 Arizona, U.S. & Canada (Mountain)

Date : 9/17/2002

Time : 14:52:15

Set to Local Computer Date/Time

Other Time/Date Setting Locations

### Setting Date/Time to Local

If the default date/time setting is NOT correct for your geographic area, you may click the **Set to Local Computer Date/Time** button to reflect the local date/time as it appears on your network. A confirmation window will appear. Click OK to confirm.

### Setting Date/Time to Other Locations/Time Zones

1. Select other geographic settings by clicking the **Other Date/Time Setting Locations** button. The following screen will appear:

Setting New Time / Date

Time Zone : (GMT-7:00) Arizona, U.S. & Canada (Mountain)

New Date : 9 / 17 / 2002

New Time : 14 : 55 : 27

Submit

Return to Date/Time Change

- Click the down arrow in the Time Zone regions to select a different time zone as shown below:

**Setting New Time / Date**

**Time Zone** [GMT-7:00 Arizona,U S & Canada (Mountain) ▼]

**New Date** [ ]

**New Time** [ ]

[GMT-12:00] Eniwetok,Kwajalein  
[GMT-11:00] Midway Island,Samoa  
[GMT-10:00] Hawaii  
[GMT-9:00] Alaska  
[GMT-8:00] Tijuana,U S & Canada (Pacific)  
[GMT-7:00] Arizona,U S & Canada (Mountain)  
[GMT-6:00] Chicago,Mexico City,Saskatchewan,Tegucigalpa,U S & Canada (Central)  
[GMT-5:00] Bogota,Indiana (East),Lima,New York,Quito,U S & Canada (Eastern)  
[GMT-4:00] Canada (Atlantic),Caracas,La Paz,Newfoundland  
[GMT-3:00] Brasilia,Buenos Aires,Georgetown  
[GMT-2:00] Mid-Atlantic  
[GMT-1:00] Azores,Cape Verde Island  
[GMT+0:00] GMT,Casablanca,Dublin,Edinburgh,Lisbon,London,Monrovia  
[GMT+1:00] Amsterdam,Belgrade,Berlin,Bern,Bratislava,Brussels,Budapest,Copenhagen  
[GMT+1:00] Ljubljana,Madrid,Paris,Prague,Rome,Sarajevo,Skopje,Sofia,Stockholm  
[GMT+1:00] Vienna,Vilnius,Warsaw,Zagreb  
[GMT+2:00] Athens,Bucharest,Cairo,Harare,Helsinki,Israel,Istanbul,Minsk,Pretoria,Riga,Tallinn  
[GMT+3:00] Baghdad,Kuwait,Moscow,Nairobi,Riyadh,St. Petersburg,Tehran,Volgograd  
[GMT+4:00] Abu Dhabi,Baku,Kabul,Muscat,Tbilisi  
[GMT+5:00] Bombay,Calcutta,Ekaterinburg,Islamabad,Karachi,Madras,New Delhi,Tashkent  
[GMT+6:00] Almaty,Colombo,Dhaka  
[GMT+7:00] Bangkok,Hanoi,Jakarta  
[GMT+8:00] Beijing,Chongqing,Hong Kong,Perth,Singapore,Taipei,Urumqi  
[GMT+9:00] Adelaide,Darwin,Osaka,Sapporo,Seoul,Tokyo,Yakutsk  
[GMT+10:00] Brisbane,Canberra,Guam,Hobart,Melbourne,Port Moresby,Sydney,Vladivostok  
[GMT+11:00] Magadan,New Caledonia,Solomon Island  
[GMT+12:00] Auckland,Fiji,Kamchatka,Marshall Island,Wellington

- Select the Time Zone and enter the Date desired.
- Click the **Submit** button. A confirmation window will appear.
- Click **OK** to confirm.

---

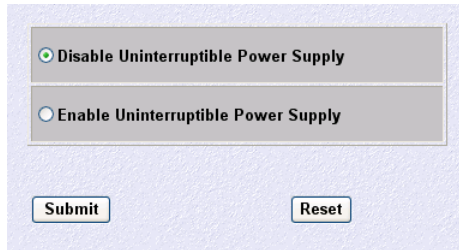
**NOTE:** You may click the *Return to Date/Time Change* button at any time without modifying the entries.

---

## Configuring UPS Support

Clicking the **UPS Options** heading from the Configuration Menu will display the current UPS setting for your ConnectStor II. The unit will recognize the use of an APC-compatible uninterruptible power supply in its internal operating system.

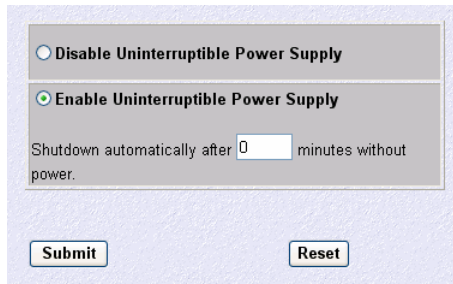
Note that the default for this setting is **Disabled**, as shown below in the information panel.



The screenshot shows a configuration window with two radio buttons. The top option, "Disable Uninterruptible Power Supply", is selected with a green dot. The bottom option, "Enable Uninterruptible Power Supply", is unselected. Below the radio buttons are two buttons: "Submit" and "Reset".

### Enabling UPS

1. If using an UPS subsystem to provide power to ConnectStor II, click the Enable **Uninterruptible Power Supply** radio button in the main information panel. The screen below will appear:

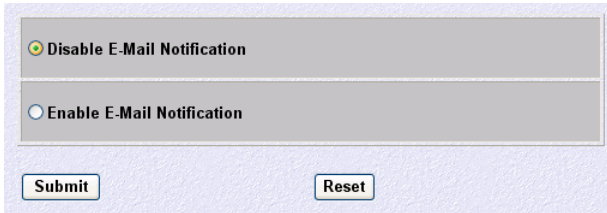


The screenshot shows the same configuration window, but now the "Enable Uninterruptible Power Supply" option is selected with a green dot. Below the radio buttons, there is a text field labeled "Shutdown automatically after" followed by a numeric input field containing the value "0", and the text "minutes without power." Below this are the "Submit" and "Reset" buttons.

2. Enter the number of minutes that you want ConnectStor II to continue to operate after a power outage is detected. This should provide enough time for all users to save or retrieve data so that no data is lost.
3. Click the **Submit** button. A confirmation window will appear.
4. Click **OK** to confirm.

## Configuring E-Mail Notification Options

Your ConnectStor II unit can send event notification messages to a designated email address (typically the network administrator). Notification events include drive fail, low fan speed, high temp., UPS power consuming, etc... The default for this setting is **Disabled** as shown below:



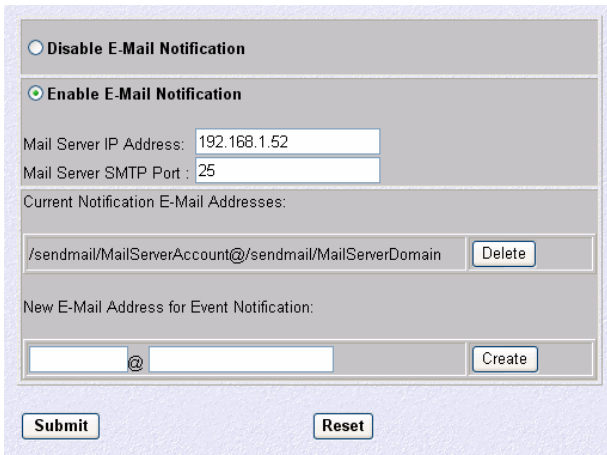
☒ **Disable E-Mail Notification**

☐ **Enable E-Mail Notification**

**Submit** **Reset**

### Enabling E-Mail Notification

1. If you wish to send an email notice to a particular network supervisor or other user, click the **Enable E-Mail Notification** radio button in the main information panel. The screen below will appear:



☐ **Disable E-Mail Notification**

☒ **Enable E-Mail Notification**

Mail Server IP Address: 192.168.1.52

Mail Server SMTP Port : 25

Current Notification E-Mail Addresses:

/sendmail/MailServerAccount@/sendmail/MailServerDomain **Delete**

New E-Mail Address for Event Notification:

@  **Create**

**Submit** **Reset**

2. Enter the E-Mail address of the individual mailbox receiving notification (such as **supervisor@mycompany.com**).
3. Enter the IP address and SMTP Server Port Number of your network's mail server in the windows shown above.
4. Click the **Submit** button. A confirmation window will appear.
5. Click **OK** to confirm.

6. Clicking **OK** reveals screen below that verifies the new settings:

<b>E-Mail Notification Status :</b>	Enabled
<b>Notification E-mail Addresses :</b>	/sendmail/MailServerAccount@/sendmail/MailServerDomain
<b>Mail Server IP Address :</b>	192.168.1.52
<b>Mail Server SMTP Port :</b>	25

[Send Test E-Mail Notice to All Notification](#)

[Return to E-mail Options](#)

7. Click the **Send Test E-Mail Notice** button to send a test notice to the designated address.
8. A pop-up window will appear indicating the test e-mail has been sent. Check the mailbox of the specified address to make sure the notice has been received.
9. Click **OK** to return to the E-Mail Options window.

## Changing IP Address Assignment Mode

Each device on the network must have a unique IP address in order to be accessed and seen by network users. If you have run the IPAssign utility (see page 12), you have already found at least one unique IP address for your network. It is possible to keep that address or to assign new addresses each time ConnectStor II is booted up.

To change the way that ConnectStor II is assigned an IP address, choose **IP Assignment** from the Configuration System submenu. The following screen will appear:

<input type="radio"/> <b>Static IP Address</b>	ConnectStor II will use only the Network IP Address which appears in the Network Setting section.  <b>WARNING:</b> Make sure network IP settings are accurate if choosing the Static IP Address option. Otherwise you may be unable to access ConnectStor II via a TCP/IP (internet) connection (see Manual for details). If you are unsure, select Dynamic IP Addressing below.
<input checked="" type="radio"/> <b>Dynamic IP Address</b>	When ConnectStor II reboots, the IP address maybe be changed using a DHCP server or through IPAssign program.

### Setting Dynamic IP Address Assignment

By default, ConnectStor II works with a DHCP (Dynamic Host Configuration Protocol) server that assigns a unique IP (Internet Protocol) address for ConnectStor II each time the unit is booted or requires use of the IPAssign program.

1. Make sure the **Dynamic IP Address** radio button is highlighted to Enable this option.
2. Click **Submit** button. Confirmation window will appear.
3. Click **OK** to confirm.

### Setting Static IP Address Assignment

To have ConnectStor II use one specific IP address, select the **Static IP address** radio button. Be sure all Network IP settings are correct (see page 19). If you are unsure, select **Dynamic IP Address**. Refer to the Troubleshooting section (see page 69) if you cannot change the IP address.



## Changing Language Setting

ConnectStor II supports the use of file and folder names in a variety of world language character sets. The default language set chosen by ConnectStor II is **850-Western European**. ConnectStor II allows supervisor to change this setting in order for network users of another language set to correctly view and create folder and file names that use unique characters without missing or incorrectly translating those characters.

1. Click on the **Languages** option in the Configuration menu. The following screen will appear:

Please select from one of the following languages below that matches the language used by your network operating system.

(\* mean also support Mac OS)

<input type="radio"/> 437 - English *	<input type="radio"/> 866 - Cyrillic (Russian)
<input type="radio"/> 737 - Greek	<input type="radio"/> 932 - Japanese *
<input type="radio"/> 775 - Baltic	<input type="radio"/> 936 - Simplified Chinese *
<input checked="" type="radio"/> 850 - Western European *	<input type="radio"/> 949 - Korean
<input type="radio"/> 852 - Eastern European	<input type="radio"/> 950 - Traditional Chinese *
<input type="radio"/> 861 - Icelandic	

2. Highlight the radio button of the corresponding multilanguage character set which your Windows, NT, or UNIX-based operating system uses.
3. Click the **Submit** button. A confirmation window will appear.
4. Click **OK** to confirm.

---

**CAUTION:** *It may be impossible to open or delete files or folder names created using unique characters of unsupported language sets.*

---

## Viewing Operating Status

The user/supervisor can remotely view real-time operating status of ConnectStor II's hardware status, including CPU temperature, hard drive temperature, CPU and system fan status, and RAID status.

Clicking on **Operating Status** selection from Configuration Menu will display the following in the information panel:

CPU Temperature :	39 °C / 102 °F
Drive Temperature :	36.5 °C / 96 °F
CPU Fan :	3924 RPM
System Fan :	4440 RPM
RAID Mode :	1+0 Stripe/RAID0
Status :	Functional

Temperature readings should be less than 122°F (50°C) in normal operation. If it is higher, one of the fans may be failing or the air passage through the ConnectStor II may be blocked.

## User Options

This Configuration Menu selection allows the user/supervisor to configure individual user access permissions for ConnectStor II. Clicking on User Options from the Configuration Menu will exhibit the following selections:

**Current Users:** displays a listing of all users defined by the supervisor. The default is to show **supervisor** as the only user with full data and configuration rights.

**Create User:** allows adding users and assigning access rights to folders created on the ConnectStor II hard drive array.

**Modify User:** permits changing the access rights for a previously-created user

**Delete User:** removes a user from the system listing and prevents that username from accessing protected data folders

## Viewing Current Users

Clicking on Current Users from the User Options submenu will display a table listing current defined users in ConnectStor II as follows:

User Name	Storage Limit	Storage Remaining	User ID
supervisor	(unlimited) MB	(unlimited) MB	
johnd	5000 MB	4726 MB	7854
bobby	8500 MB	539 MB	333
victorp	5000 MB	1862 MB	1598

The table shows user name, storage limit allocated for each user, storage space remaining, and unique User ID number.

## Creating a User

1. Clicking on the **Create User** selection from the User Options submenu will display the following screen in the information panel:

User Name (case-insensitive):	Daniel
User Password:	.....
Confirm Password:	.....
Storage Limit (0:unlimited):	6000 MB
<input checked="" type="checkbox"/> Unix User:	
User ID:	1298

2. Type a user name and password for the new user.
3. Confirm the password by retyping it in the **Confirm Password** field.
4. Assign the **Storage Limit** amount for each user in Megabyte units (1000MB = 1GB). A zero will allow the user to access all available storage capacity.
5. If the new user will access ConnectStor II from a Unix/Linux platform, check the **Unix User** box and type a unique ID number in the **User ID** field.

---

**NOTE:** You may assign a User ID to a non-Unix/Linux user. Check the **Unix User** box and type an ID number.

---

6. Click on the **Create** button. A confirmation window will appear.
7. Click **OK** to confirm.

---

**NOTE:** New users will immediately appear in the **Current Users** listing after they are created.

---

User Name	Storage Limit	Storage Remaining	User ID
supervisor	(unlimited) MB	(unlimited) MB	
johnd	5000 MB	4726 MB	7854
bobby	8500 MB	539 MB	333
victorp	5000 MB	1862 MB	1598
daniel	6000 MB	6000 MB	1298

## Modifying a User

Once you have created users, you may later wish to modify individual settings for storage capacity and user passwords. Perform the following steps:

1. Clicking on the **Modify User** selection from the User Options submenu will display the following table will appear in the information panel:

User Name	Storage Limit	Storage Remaining	User ID	Action
supervisor	(unlimited) MB	(unlimited) MB		<a href="#">Modify</a>
johnd	5000 MB	4726 MB	7854	<a href="#">Modify</a>
bobby	8500 MB	539 MB	333	<a href="#">Modify</a>
victorp	5000 MB	1862 MB	1598	<a href="#">Modify</a>
daniel	6000 MB	6000 MB	1298	<a href="#">Modify</a>

2. From the table, select the user you wish to modify and click the **Modify** button in the Action column. The screen below will appear. You may click the **Return to Modify User** button at anytime to return to the previous screen without making changes.

User Name:	daniel
Storage Limit (0:unlimited):	<input type="text" value="6000"/> MB
Storage Remaining	6000 MB
User ID	1298
Change Password	<input type="checkbox"/>

[Modify](#)[Reset](#)

[Return to Modify User](#)

3. You may change the amount of storage capacity assigned in the **Storage Limit** field. A zero will allow the user to access all available storage capacity.

- Checking the Change Password box will bring up a password confirmation window below:

User Name:	daniel
Storage Limit (0:unlimited):	<input type="text" value="6000"/> MB
Storage Remaining	6000 MB
User ID	1298
Change Password	<input checked="" type="checkbox"/>
New Password:	<input type="password" value="••••••"/>
Confirm New Password:	<input type="password" value="••••••"/>

- Enter new password and retype in the **Confirm New Password** field.
- Click the **Modify** button to make changes or **Reset** button to cancel.  
The Modify Users table will display immediately.

## Deleting a User

**WARNING:** When you delete a User, you also delete the User's home directory and all data in that directory will be permanently lost.

1. Clicking on the **Delete User** selection from the User Options submenu will display the following table in the information panel:

User Name	Storage Limit	Storage Remaining	User ID	Action
supervisor	(unlimited) MB	(unlimited) MB		<input type="button" value="Delete"/>
johnnd	5000 MB	4726 MB	7854	<input type="button" value="Delete"/>
bobby	8500 MB	539 MB	333	<input type="button" value="Delete"/>
victorp	5000 MB	1862 MB	1598	<input type="button" value="Delete"/>
daniel	6000 MB	6000 MB	1298	<input type="button" value="Delete"/>

2. From the table, select the user you wish to delete and click the **Delete** command under the **Action** column.
3. A confirmation window will appear. Click the **OK** button.
4. The Delete User table will be redisplayed without the just-deleted user.

User Name	Storage Limit	Storage Remaining	User ID	Action
supervisor	(unlimited) MB	(unlimited) MB		<input type="button" value="Delete"/>
johnnd	5000 MB	4726 MB	7854	<input type="button" value="Delete"/>
bobby	8500 MB	539 MB	333	<input type="button" value="Delete"/>
victorp	5000 MB	1862 MB	1598	<input type="button" value="Delete"/>

## File Sharing

This Configuration Menu selection allows the user/supervisor to configure individual data folders and the type of security for each. Clicking on File Sharing from the Configuration Menu will exhibit the following selections:

**Current Folder(s):** displays a listing of all data folders defined by the supervisor. The default is that no folders are defined and users have access to the entire storage capacity of the RAID array.

**Create Folder:** allows adding private data folders and assigning access rights to those folders created on the ConnectStor II hard drive array.

**Modify Folder:** changes the access rights for a previously-created folder.

**Delete Folder:** removes a defined folder and its data from the hard drive array.

### Viewing Current Shared Folders

Clicking on **Current Folders** from the File Sharing submenu will display a table listing current defined folders on the ConnectStor II unit as follows:

Shared Folder	Description	Permissions	Valid Users
Bob	Bob's stuff	User Mode (read share)	bobby daniel johnd
Victor	Victor's files	User Mode (write share)	supervisor victorp
Department	stored material	Read & Write	Everyone
Department2	Archive	Read Only	Everyone
LockUp	Confidential	No Access	None
<b>Total Storage Capacity:</b> 20525 MB			
<b>Space Used by Operating System:</b> 504 MB			
<b>User Data:</b> 11373 MB			
<b>Storage Available:</b> 8648 MB			

The table above shows shared folder name, brief custom description of data (if included), type of security permission, and a listing of all valid users for shared folders that employ User Mode (a list of specific users is created for a given folder).

Below the table is a description of the space remaining on the hard drive.



## Creating a New Shared Folder

1. Clicking on the **Create Folder** selection from the File Sharing submenu will display the following screen in the information panel:

Shared Folder	Description	Permissions	Valid Users	Unselect Users
<input type="text"/>	<input type="text"/>	Read & Write Read Only User Mode(read share) User Mode(write share) No Access	Everyone	None

2. Type a name in the **Shared Folder** field (required) and **Description** field (optional).
3. In the **Permissions** column, select the type of access as follows:

**Read & Write** All network users can save and retrieve data in the folder.

**Read Only** All network users can retrieve data in the folder, but cannot save files to the folder or create subfolders.

**User Mode** Access to data is limited to list of Valid Users for that folder.

**No Access** The folder is locked and no user can retrieve data in the folder.

For example, in the Current Folders table shown on the previous page there are two shared folders, **Department** and **Department2**. All users have read and write access to these folders. The user **victorp** and **supervisor** are the only persons with access to folder Victor. Nobody can access Folder **LockUp**.

Shared Folder	Description	Permissions	Valid Users	Unselect Users
<input type="text"/>	<input type="text"/>	Read & Write Read Only User Mode(read share) User Mode(write share) No Access		bobby daniel johnd supervisor victorp

4. If restricting folder access through **User Mode**, input the names of all valid users in the **Valid User** column
5. Click on the **Create** button or **Reset** to cancel.
6. A confirmation window will appear. Click **OK** to confirm. Each new data folder will appear in the **Current Folders** listing.

## Modifying Shared Folder Properties

Once you have created one or several data folders, you may later wish to modify individual settings for security permission and/or valid user listing. Perform the following steps:

1. Clicking on the **Modify Folder** selection from the File Sharing submenu will display the following table in the information panel:

Shared Folder	Description	Permissions	Valid Users	Action
Bob	Bob's stuff	User Mode (read share)	bobby daniel johnd	Modify
Victor	Victor's files	User Mode (write share)	supervisor victorp	Modify
Department	stored material	Read & Write	Everyone	Modify
Department2	Archive	Read Only	Everyone	Modify
LockUp	Confidential	No Access	None	Modify

2. From the table, select the folder you wish to modify and click the **Modify** button under the **Action** column. The following screen will appear:

Shared Folder	Description	Permissions	Valid Users	Unselect Users
LockUp	Confidential	Read & Write Read Only User Mode(read share) User Mode(write share) No Access	None	Everyone

Modify

Reset

Return to Modify Folder

3. You may change any of the settings in the columns shown above. This means you may change the type of Permission setting or add/remove valid users for User Mode access.
4. Click the **Modify** button. A confirmation window will appear.
5. Click **OK** to confirm.

---

**NOTE:** Click the *Return to Modify Folder* button at any time to exit this screen.

---

## Deleting an Existing Shared Folder

1. Clicking on the **Delete Folder** selection from the File Sharing submenu will display the following table in the information panel:

Shared Folder	Description	Permissions	Valid Users	Action
Bob	Bob's stuff	User Mode (read share)	bobby daniel johnd	Delete
Victor	Victor's files	User Mode (write share)	supervisor victorp	Delete
Department	stored material	Read & Write	Everyone	Delete
Department2	Archive	Read Only	Everyone	Delete
LockUp	Confidential	No Access	None	Delete

2. From the table, select the folder you wish to delete and click the **Delete** button under the Action column. A confirmation window will appear.
3. Click OK to confirm.

---

**WARNING:** Be absolutely sure before you delete a folder. All data in the folder will be lost as a result of deletion.

---

## Sharing List

The Configuration Menu selection allows the user/supervisor to view the individual data folders and the type of security for each. Clicking on Sharing List from the Configuration Menu will exhibit the following information.

**Current Folder(s) on ConnectStor II:** Displays a listing of all data folders. All folders are defined by the supervisor. No folders are defined by default.

**Shared Folders:** Folders that are shared among multiple users. It includes the folder name, description, permissions and valid users.

**User's Folders:** Folders belonging to individual users. It includes the folder name, description, user's storage limit and remaining (free) storage capacity.

Current Folders on ConnectStor II			
Shared Folders:			
Shared Folder	Description	Permissions	Valid Users
Department	stored material	Read & Write	Everyone
Department2	Archive	Read Only	Everyone
User's Folders:			
User's Folder	Description	Storage Limit of User	Storage Remaining of User
johnd	Home Directories	5000 MB	4726 MB
victorp	Home Directories	5000 MB	1862 MB
Total Storage Capacity:		20525	MB
Space Used by Operating System:		504	MB
User Data:		11373	MB
Storage Available:		8648	MB

## UNIX/Linux (NFS) Servers

The UNIX (NFS) selection is used to either configure or view the Export IP address and Host Name settings for UNIX or Linux-based network server(s) if used as the operating system.

From the main Configuration Menu displays the following choices:

**Current Settings:** allows users to view previously-configured settings for Export IP address and Host Name of UNIX/Linux server(s) with access to ConnectStor II

**Create:** permits the supervisor to designate new or additional Export IP address and Host Name of network UNIX/Linux server(s) so attached UNIX/Linux clients can access data and storage capacity contained on the ConnectStor II unit

**Delete:** permits the supervisor to delete one or all Export IP addresses of UNIX/Linux servers able to access the ConnectStor II unit

### Viewing Current Servers

Clicking on Current Settings from the UNIX (NFS) submenu selection will display the following table in the main information panel:

Export IP	Host
192.168.1.153	LinuxExpress
192.168.1.77	UnixServer

The table shows the designated Export IP address of the UNIX or Linux-based server and its Host Name.

These settings cannot be changed. You must create a new one (see the next page). Delete the old setting if you want to stop access by that particular UNIX/Linux server.

## Creating New UNIX/Linux Servers

1. Connect to the ConnectStor II unit from a major Internet browser. Type in the IP address and password.
2. Once connected, click on **Create** from the **UNIX (NFS)** submenu selection. The following screen will appear in the main information panel:




The screenshot shows a web form with a light blue background. It contains two text input fields. The first field is labeled 'New Export IP Address:' and the second is labeled 'Host Name:'. Below these fields is a button labeled 'Create'.

3. Enter the Export IP address and Host Name of each UNIX/Linux-based server that you wish ConnectStor II to support on your network.
4. Click the **Create** button. A confirmation window will appear.
5. Click **OK** to confirm.

## Deleting a UNIX/Linux Server

To revoke access for users of a particular UNIX/Linux server to the ConnectStor II unit, simply delete its Host IP address as follows:

1. Click on **Delete** from the **UNIX (NFS)** submenu selection. The following screen will appear in the main information panel:



Export IP	Host	Action
192.168.1.153	LinuxExpress	<input type="button" value="Delete"/>
192.168.1.77	UnixServer	<input type="button" value="Delete"/>

2. Select UNIX server hostname you wish to remove and click **Delete** button. A confirmation window will appear.
3. Click **OK** to confirm.

## Password Server Options

ConnectStor II can support use of a dedicated network server that manages and authenticates user passwords and permissions. This arrangement provides the same level of protection for data residing on the ConnectStor II unit as other critical resources on the network. In addition, this can save valuable time since the passwords already exist elsewhere in the system.

The default for this feature is **Disabled** since not all networks employ such a dedicated server or you may want to customize access differently than provided by the password server if one exists.

---

**WARNING:** Changing the Password Server setting at any time will **DELETE ALL**

*User account names (except for the supervisor)*

*User home directories*

*User Mode folders*

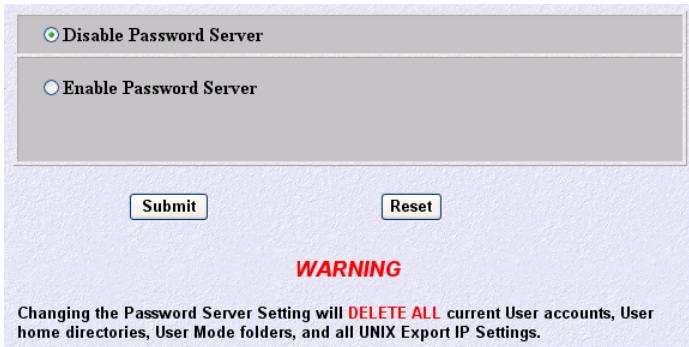
*UNIX Export IP settings*

*from ConnectStor II because access control will change between the Password Server and ConnectStor II.*

---

## Enabling Password Server Support

1. To enable the Password Server setting, click on Password Server from the Configuration side menu. The following screen will appear in the information panel:



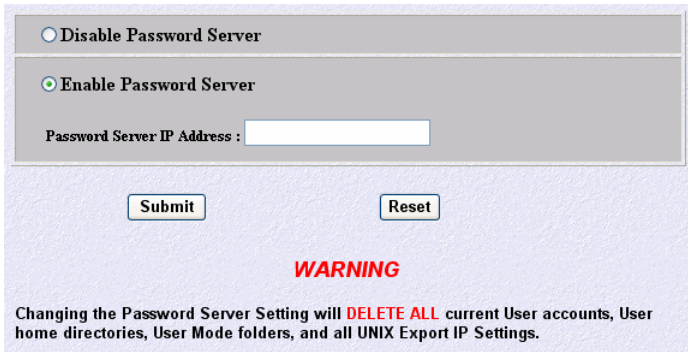
☒ Disable Password Server

☐ Enable Password Server

**WARNING**

Changing the Password Server Setting will **DELETE ALL** current User accounts, User home directories, User Mode folders, and all UNIX Export IP Settings.

2. Click on the **Enable Password Server** radio button. The following screen will appear showing a **Password Server IP Address** field.



☐ Disable Password Server

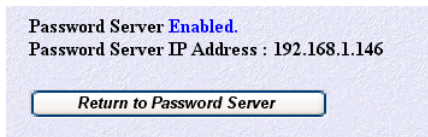
☒ Enable Password Server

Password Server IP Address :

**WARNING**

Changing the Password Server Setting will **DELETE ALL** current User accounts, User home directories, User Mode folders, and all UNIX Export IP Settings.

3. Type the IP address of Password Server.
4. Click the **Submit** button. A confirmation window will appear.
5. Click **OK** to confirm. A second confirmation window will appear.
6. Click **OK** to confirm.
7. A confirmation page will appear indicating the Password Server is Enabled, as shown below. Click **Return to Password Server** button to continue.



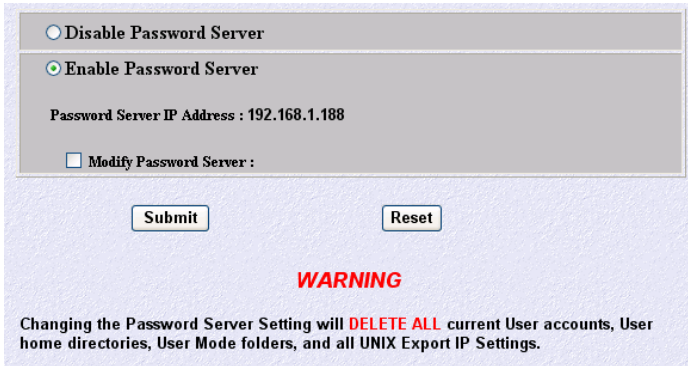
Password Server **Enabled.**

Password Server IP Address : 192.168.1.146



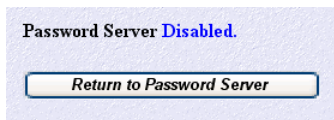
## Disabling Password Server Support

1. To enable the Password Server setting, click on Password Server from the Configuration side menu. The following screen will appear in the information panel:



The screenshot shows a configuration panel for the Password Server. It contains two radio buttons: "Disable Password Server" (unselected) and "Enable Password Server" (selected). Below the radio buttons, the "Password Server IP Address" is set to "192.168.1.188". There is a checkbox labeled "Modify Password Server:" which is currently unchecked. At the bottom of the panel are two buttons: "Submit" and "Reset". Below the panel, a red "WARNING" message is displayed, stating: "Changing the Password Server Setting will DELETE ALL current User accounts, User home directories, User Mode folders, and all UNIX Export IP Settings."

2. Click on the **Disable Password Server** radio button.
3. Click the **Submit** button. A confirmation window will appear.
4. Click **OK** to confirm. A second confirmation window will appear.
5. Click **OK** to confirm.
6. A confirmation page will appear indicating the Password Server is **Disabled**, as shown below. Click **Return to Password Server** button to continue.



## **RAID Options**

This selection from the main Configuration menu allows the user/supervisor to view the current status and RAID level of your ConnectStor II unit or to change the RAID configuration. Clicking on **RAID Options** will reveal the following menu:

**Status:** displays the current status and RAID level of the **array** in your unit.

**Setup:** displays the alternative RAID configuration for the **drives** contained in your unit

## **About RAID Arrays**

### **RAID 1 Mirroring**

When ConnectStor II is first started, if two disk drives are installed, ConnectStor II automatically creates a RAID 1 or Mirrored array. RAID 1 maintains identical data on both drives. If one drive should fail, ConnectStor II will continue responding to data requests from users. Data will not be lost. When a replacement drive is installed in place of the failed drive, ConnectStor II automatically sends all data from the original working drive to the replacement drive until the data on both drives matches each other.

### **RAID 0 Striping**

When ConnectStor II is first started, if one disk drive is installed, ConnectStor II automatically creates a RAID 0 or Striped array. With ConnectStor II, RAID 0 is used for one or two drives. Their combined storage capacity appears as a single storage volume (or drive).

Under RAID 0 with two drives, when a file is saved, ConnectStor II splits up blocks of data and simultaneously sends different portions to both installed drives. When a file is read or retrieved, ConnectStor II simultaneously accesses both drives to rebuild the split-up data. Using RAID 0 striping actually doubles the speed of sustained data transfers (reads and writes) since two drives perform the work of one drive.

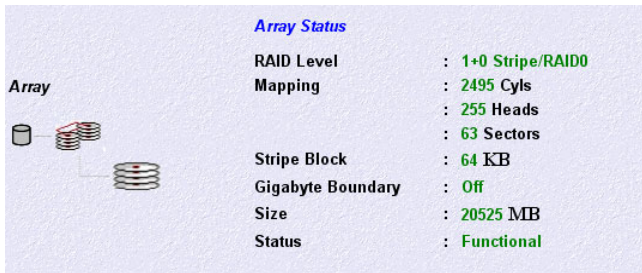
---

***WARNING:*** *There is no fault tolerance under RAID 0 striping. If one drive should fail, all data from both drives will be lost. If you are using RAID 0, backup your critical files elsewhere on the network.*

---

## Viewing Current RAID Array Status

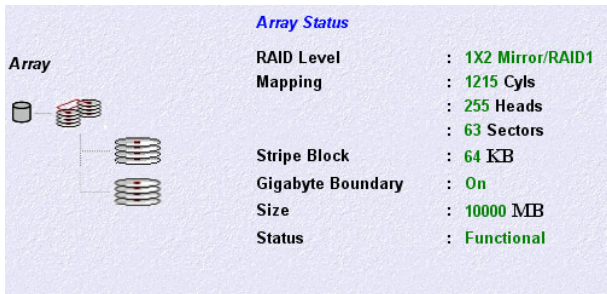
Clicking on Status in submenu will display the Array Status window in the information panel as shown below:



The screenshot shows the 'Array Status' window. On the left, there is a diagram labeled 'Array' showing a single disk drive connected to a RAID controller. On the right, the status details are listed:

Array Status	
RAID Level	: 1+0 Stripe/RAID0
Mapping	: 2495 Cyls
	: 255 Heads
	: 63 Sectors
Stripe Block	: 64 KB
Gigabyte Boundary	: Off
Size	: 20525 MB
Status	: Functional

The Array Status above shows a ConnectStor II with a single disk drive. The Array Status below shows a ConnectStor II with two disk drives.



The screenshot shows the 'Array Status' window for a RAID 1X2 array. On the left, there is a diagram labeled 'Array' showing two disk drives connected to a RAID controller. On the right, the status details are listed:

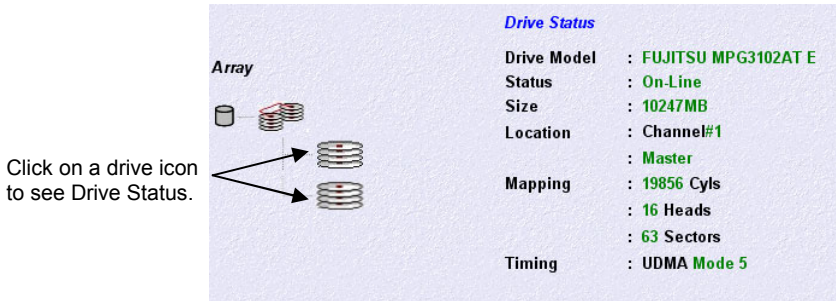
Array Status	
RAID Level	: 1X2 Mirror/RAID1
Mapping	: 1215 Cyls
	: 255 Heads
	: 63 Sectors
Stripe Block	: 64 KB
Gigabyte Boundary	: On
Size	: 10000 MB
Status	: Functional

The panel shows the type of RAID level being used, how the array is mapped or appears as a virtual drive, stripe block size, Gigabyte Boundary (on or off, see page 48), storage capacity, and functional status of the array.

## Viewing Physical Drive Status

Within the Array Status panel, drive icons are located at the left side of the statistics.

Click on an individual drive icon to reveal the Drive Status window as shown below:



The Drive Status panel identifies drive model, status (online or offline), physical capacity of drive, IDE channel number, physical mapping of drive by ConnectStor II, and the type of drive timing (for example, UDMA Mode 5 is an Ultra ATA 100 drive type).

Click on the paired drive array to return to the Array Status window.

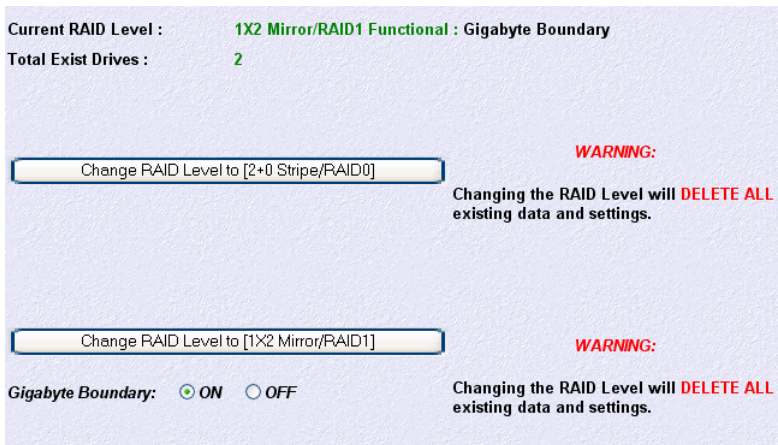
## Changing RAID Level

During setup, if you installed only one hard drive, ConnectStor II formatted it as a single-disk RAID 0 striped array. If you installed two hard drives, ConnectStor II formatted them as a two-disk RAID 1 mirrored array.

You may convert two-disk array from RAID 1 to RAID 0 and vice versa.

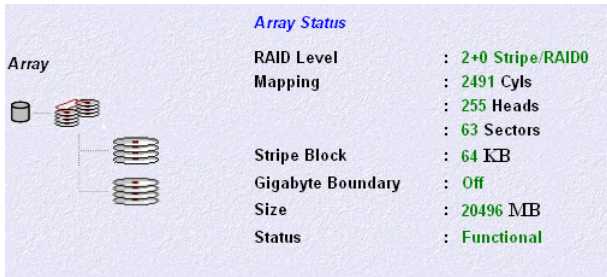
***WARNING: Changing RAID configuration at any time will DELETE all data stored on the ConnectStor II unit. Make sure you backup all folders and data PRIOR to changing this setting.***

1. To change RAID level, select **Setup** from the side menu. The following screen will appear:



2. If you are going from a RAID 0 to a RAID 1, select ON or OFF for Gigabyte Boundary. See the discussion on the next page.
3. Click on the **Change RAID Level** button. A confirmation window will appear.
4. Click OK to confirm. A confirmation window will appear.
5. Click OK to confirm. The browser will ask permission to close the window.
6. Close your browser window.
7. In your browser, reconnect to the ConnectStor II and log in.

ConnectStor II will reboot, and then automatically reconfigure and reformat the drives to reflect the new RAID level (see below).



The new RAID Options Status screen shows the new RAID level. Note that the array size has doubled as a result of converting from RAID 1 to RAID 0.

---

**WARNING:** *There is no fault tolerance under RAID 0 striping. If one drive should fail, all data from both drives will be lost. If you are using RAID 0, backup your critical files elsewhere on the network.*

---

### **Gigabyte Boundary**

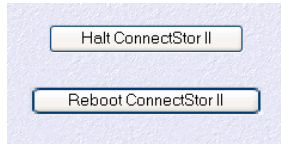
The Gigabyte Boundary feature is designed for fault tolerant arrays (RAID 1) in which a drive has failed and the user cannot replace the drive with the same capacity or larger. Instead, the Gigabyte Boundary feature permits the installation of a replacement drive that is slightly smaller (within 1 gigabyte) than the remaining working drive (for example, a 20.5GB drive would be rounded down to 20GB). This can be helpful in the event that a drive fails and an exact replacement model is no longer available. Without this feature enabled, UltraTrak will NOT permit the use of a replacement drive that is slightly smaller than the remaining working drive.

For the Gigabyte Boundary feature to work, the Gigabyte Boundary feature must be set to ON when the original array is created. When enabled, the Gigabyte Boundary feature rounds the drive capacity of all drives to the common whole GB drive size. For example, with the Gigabyte Boundary feature enabled, the remaining working drives can be 20.5GB and the replacement drive can be 20.3, since all are rounded down to 20GB. This permits the smaller drive to be used. Please note that users will lose a small amount of available storage capacity from each drives in order to arrive at a common drive size.

## **Halt / Reboot ConnectStor II**

The user/supervisor may need to take ConnectStor II offline temporarily in the case of removing/replacing hard drives or simply reboot the unit due to certain other network issues.

Clicking on the **Halt/Reboot** command from the Configuration side menu will display two buttons: Halt ConnectStor II or Reboot ConnectStor II as seen below:



### **Halting ConnectStor II**

1. Clicking the **Halt ConnectStor II** button will shut down the unit remotely. A confirmation window will appear.
2. Click **OK** to confirm. A second confirmation window will appear.
3. Click **OK** to confirm. The browser will ask permission to close the window.
4. Close your browser window.

---

**NOTE:** To restart the ConnectStor II, turn the power switch off and then on again.

---

### **Remotely Rebooting ConnectStor II**

1. Clicking the **Reboot** button reboots the ConnectStor II operating system.
2. Click **OK** to confirm. A second confirmation window will appear.
3. Click **OK** to confirm. The browser will ask permission to close the window.
4. Close your browser window.
5. In your browser, reconnect to the ConnectStor II and login.

---

**CAUTION:** Users temporarily will be unable to access the unit's data until the system reboots completely.

---

## Advanced Configuration Commands

The Advanced selection from the main Configuration menu will display the following submenu:

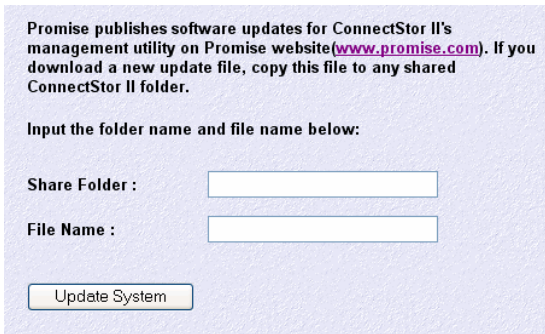
**Update System:** is used to upgrade internal operating system software with current updates as they are available.

**Set to Default:** returns ALL ConnectStor II menu selections to their original default settings.

**Clone:** Copies the user settings from one ConnectStor II to additional ConnectStor II units. This is useful if you wish to add additional ConnectStor II units on the same network and want to have the same user settings as those on the original unit.

### Updating System

1. To upgrade ConnectStor II's operating system, obtain the latest ConnectStor II update file. Visit the Promise website ([www.promise.com](http://www.promise.com)) and go to Support then Download. In the Select Product menu, select ConnectStor II.
2. Copy the file to any available Shared Folder on the ConnectStor II unit
3. Click the "**Update System**" command from the Advanced Configuration side menu. The following screen will appear:



Promise publishes software updates for ConnectStor II's management utility on Promise website([www.promise.com](http://www.promise.com)). If you download a new update file, copy this file to any shared ConnectStor II folder.

Input the folder name and file name below:

Share Folder :

File Name :

4. Input the name of the Shared folder and file name of the update file.
5. Click **Update System** button. A confirmation window will appear.
6. Click **OK** to continue. A second confirmation window will appear.
7. Click **OK** to continue.

---

**NOTE:** ConnectStor II will update its internal operating system with the new file, then reboot. All current settings will be maintained.

---



## Restoring ConnectStor II to Default Settings

The network administrator may wish to restore the default settings of ConnectStor II. This is necessary, for example, if moving the unit to a new network environment.

***WARNING: Returning ConnectStor II to Default Settings will DELETE ALL existing data and settings.***

1. Click on **Default Setting** from the Advanced submenu selection.
2. The following table will be displayed showing the Default settings:

ConnectStor II Default Settings	
Network Settings	None (Run IP-Assign or DHCP on reboot)
Date / Time	Hardware dependent (Timezone: GMT:+8:00)
UPS Support	Disable
E-Mail Notification	Disable
IP Assignment	Dynamic IP
Language	850 - Western European
Primary User	supervisor
File Sharing	None
Unix (NFS)	None
Password Server	Disable
RAID Level	1 drive : [1+0 Stripe/RAID 0]
	2 drives : [1X2 Mirror/RAID 1]
Return System to Default Settings	

3. Click on "**Return System to Default Settings**" button.
4. A confirmation window will appear. Click **OK** to proceed or **Cancel**.
5. A second window will appear. Click **YES** to proceed or **Cancel**.

## Using the Clone Feature

The Clone feature copies the user options and password settings from one ConnectStor II unit to another. You would use this feature when adding another ConnectStor II to a network that already has one. This action greatly reduces setup time for the new unit.

For the purpose of cloning, the **source** unit is the one already in service. The **target** unit is the one being added to the network. You begin the cloning procedure by logging into the target unit first, then copying the settings from the source unit.

These two ConnectStor II units must be running Firmware version 1.0.0.10 or newer. The version number appears on the Login page of the System Administration Manager. Download and install the latest firmware release from the Promise website, as necessary.

---

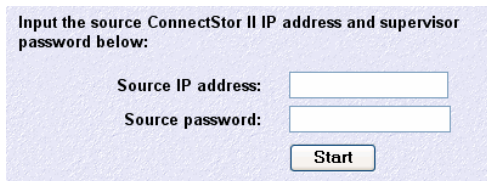
***WARNING:*** All current User accounts, User home directories, User Mode folders, and all UNIX Export IP Settings on your (the target) ConnectStor II will be **DELETED**. Use this feature with caution.

---

The supervisor password for your (the target) ConnectStor II unit will NOT be changed.

Input the **source** ConnectStor II IP address and supervisor password below:


1. Click on Clone from the Advanced submenu selection.



2. In the **Source IP address:** and **Source password:** fields, enter the IP address and supervisor password, respectively, of the source ConnectStor II that has the user settings you want to copy to your (the target) ConnectStor II.
3. Click the Start button.

## Exit Command

1. Selecting the **Exit** command from the Configuration side menu will reveal a Logout button.



2. Click the **Logout** button to end the session and return to the main login screen.

## Chapter 4: Using ConnectStor II

Once you have successfully completed the ConnectStor II installation and configuration, the network attached storage system is now available to your network users. Individual users will first want to "map" their network PCs to the ConnectStor II unit in order to begin saving and retrieving data. Next, users may wish to create common folders within the ConnectStor II storage array.

### Mapping ConnectStor II to Individual PCs

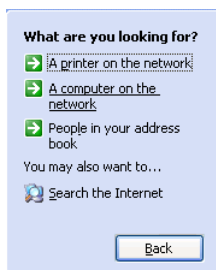
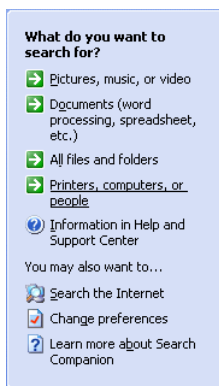
To begin using the ConnectStor II unit for network storage, each user must first map the ConnectStor II unit to their computer. If the user has full read/write/change rights, he/she can then create sub-folders or directories within all areas of ConnectStor II for which the user has access.

These directions for mapping ConnectStor II will work with the following network installations (contact your network administrator if you have any questions):

- Microsoft network using TCP/IP
- Microsoft network using NETBEUI (*with TCP/IP also configured*)
- NFS - Configure the UNIX/Linux Network Setup

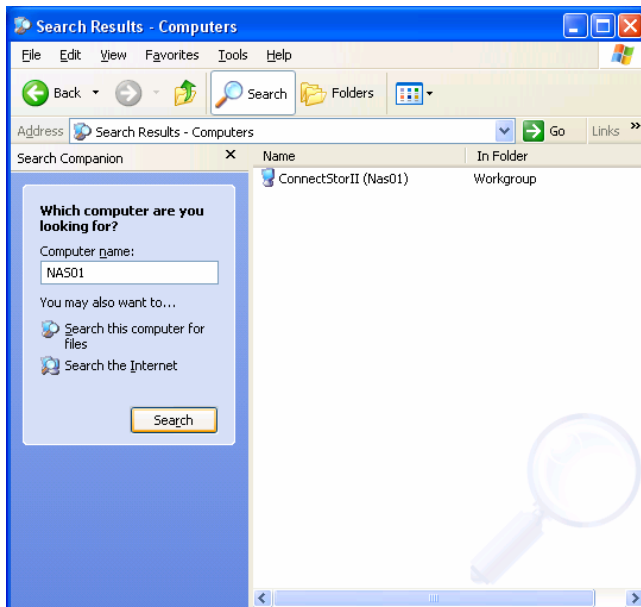
### Windows XP

1. Be sure that there is a folder on ConnectStor II for each user planning to map ConnectStor II to his/her PC, and that the user has access rights to the folder (see page 36).
2. In Windows, click the Start button, click **Search** and then click **Printers, computers, or people** in the dialog box (below, left). Click on **A computer on the network** (below, right)

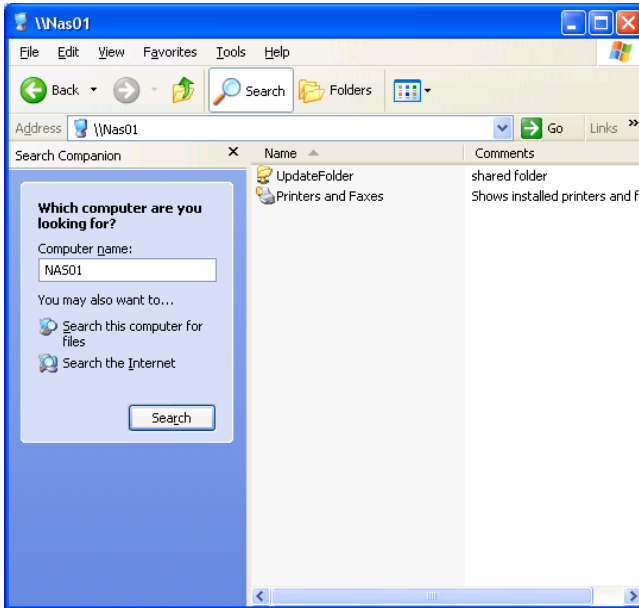


3. Type the ConnectStor II's Server Name (see page 19) in the **Computer name:** field, then click the **Search** button.

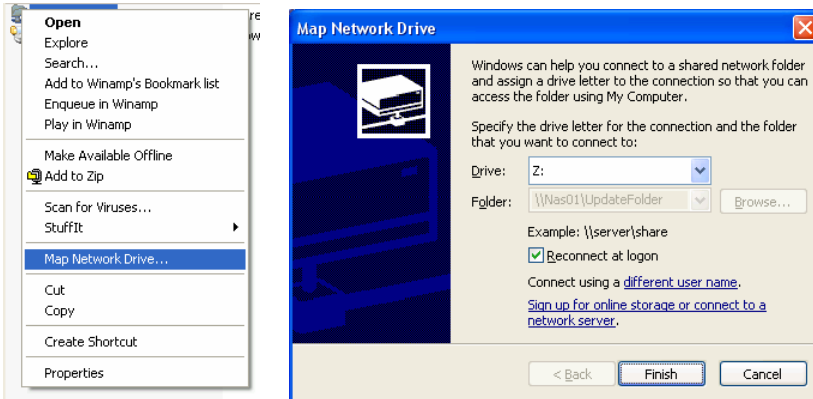
Windows searches the network for a computer with the name you provided. The ConnectStor II unit and its location information will appear as shown below:



4. Double-click on **ConnectStor II** to open the connection. The folders you have created will appear (below).



Right-click on the folder you want to map to your computer (below, left).



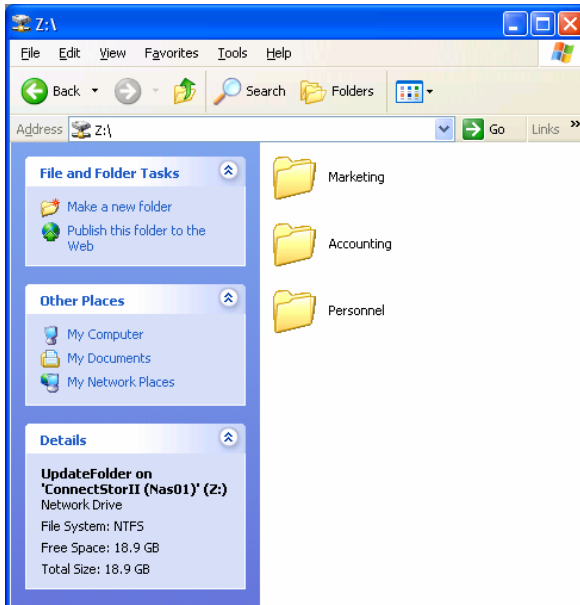
Windows offers to connect the shared network folder (on the ConnectStor II) and assign it an available drive letter on your PC.

5. Select the drive letter you want and click the **Finish** button. The connection dialog box appears (below).

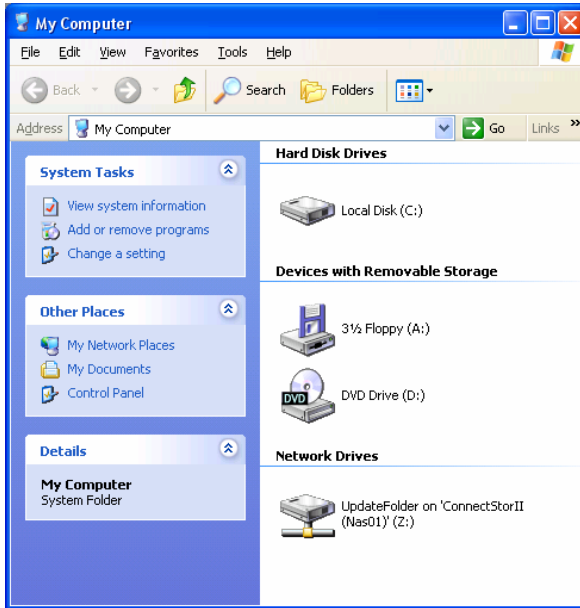
Check the **Reconnect at logon** box. This action adds the ConnectStor II to the Network Neighborhood and Windows Explorer each time the User logs on or reboots the PC, *provided the ConnectStor II's IP address remains the same.*



6. Type your **User Name** and **Password** in their respective fields and click OK. The contents of the newly mapped directory are displayed (below).



At the same time, the new drive letter is added to your system under the My Computer icon (below).



To access your mapped ConnectStor II folder from this point, double-click on the networked drive icon.

By default, a user has full read/write/change rights to the ConnectStor II. He/she can begin to save data, retrieve or delete data stored on a ConnectStor II array the same as any other local or commonly shared network drive.

---

**CAUTION:** *In most network installations, a supervisor will want to restrict the access of some directories to certain users. See File Sharing on page 34 if you wish to restrict such access.*

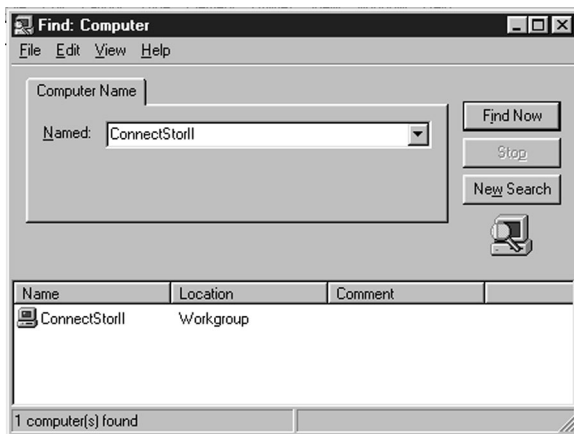
---

## Windows 98, ME, NT4, 2000

1. Be sure that there is a folder on ConnectStor II for each user planning to map ConnectStor II to his/her PC, and that the user has access rights to the folder (see page 35).
2. Use the **Find Computer** function. In Windows, click on the Start button, select **Find** and then **Computer** to show **Find Computer** dialog box (see below).

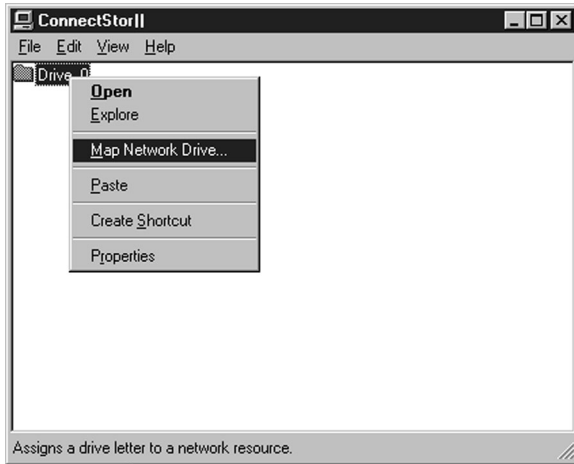


3. Enter the ConnectStor II's Server Name (see page 19) in the **Named** text field and then click the "Find Now" button.
4. The ConnectStor II unit and its location information will appear as shown below:



5. Double-click on ConnectStor II to open the connection. The description of the mapped drive will show "Drive\_0".

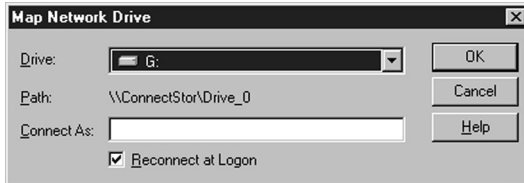




6. Right click on the displayed drive folder to map each drive (see above).

**NOTE:** Actual folder name depends on names established during file sharing. See page 34.

7. The following window will appear.



8. Select which available drive letter that ConnectStor II will occupy on your individual computer in the Drive selection menu. Enter a description in the **Connect As** field, if desired.

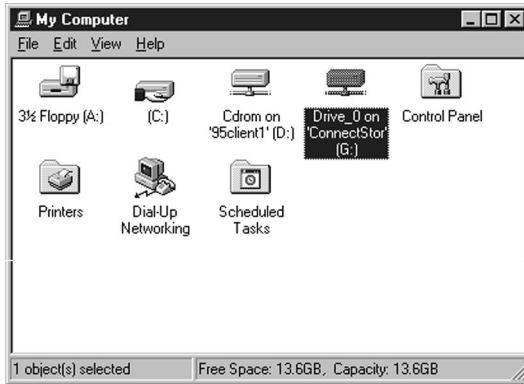
Check the Reconnect at logon box. This action adds the ConnectStor II to the Network Neighborhood and Windows Explorer each time the User logs on or reboots the PC, provided the ConnectStor II's IP address remains the same.

9. When finished with your selections, click the OK button to continue.
10. The ConnectStor II unit will appear in the Network Neighborhood, My Computer (see below), and/or Windows Explorer views.

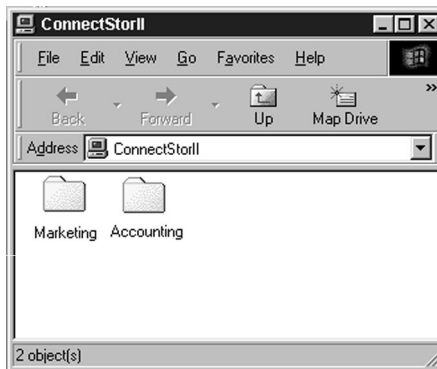
By default, a user has full read/write/change rights to the ConnectStor II. He/she can begin to save data, retrieve or delete data stored on a ConnectStor II drive array just like using any other local or commonly shared network drive.

**CAUTION:** *In most network installations, a supervisor will want to restrict the access of some directories to certain users. See File Sharing on page 34 if you wish to restrict such access.*

If ConnectStor II is properly mapped to the user's computer, open Network Neighborhood, My Computer, or Windows Explorer, double click on the Drive icon for ConnectStor II.



To access your mapped ConnectStor II folder from this point, double click on the networked drive icon.



If the user has access rights to only certain shared folders, the user may save, retrieve, or delete data in those folders only by double-clicking the folder. Optionally, the user may open the folder and create additional sub-folders or directories if they have change rights to the folder.

## UNIX/Linux

Below is an example of configuring ConnectStor II for UNIX or Linux. Note that the IP address and Linux host cited here are just examples.

The ConnectStor II is fully booted.

The ConnectStor II Server Name is PTICS2000532 (example only)

The ConnectStor II IP address 192.168.1.151 (example only)

The Workgroup/Domain is Workgroup

No Users have been defined.

Two folders have been created, TEST1 and TEST2, with Permissions of Read & Write, Valid Users of Everyone

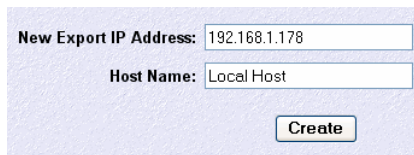
You are running RedHat Linux 7.2

You have logged-in as “root”

---

**NOTE:** *This procedure is not dependent on the version of UNIX or Linux OS.*

---



New Export IP Address: 192.168.1.178

Host Name: Local Host

Create

1. In the System Administration Manager, click on Unix (NFS) and Create.
2. Type the IP address of the UNIX/Linux Host in the **New Export IP Address:** field.  
Type the host name of the UNIX/Linux Host in the **Host Name:** field.

---

**NOTE:** *You can find IP address and Host Name on the Linux PC by running “lconfig”.*

---

3. In the **mnt** directory create a mount point (In our example we call it “Cs2”).
4. Using a text editor, edit the **/etc/hosts** file to append the IP address and the Server Name (PTICS2000532, or example) of the ConnectStor II to allow communication between it and the Linux Host.
5. In order for the ConnectStor II to communicate with a Local Host through a Firewall, certain adjustments are necessary. There are three options:
  - Option 1 disables the firewall (not recommended).
  - Option 2 will permanently configure the “etc/sysconfig/ipchains” file. This file contains information of what can come in and go out through the firewall.
  - Option 3 executes a temporary command that will allow communication for the current session only. After a reboot you must execute the command again.

**Option 1**

Once booted into the Local Host, at the command line type “setup”. This action will open the setup screen. Once in the setup screen, disable the firewall. Exit and save the changes. Go on to Step 6.

**Option 2**

- a. From the `/etc#` prompt, run **vi sysconfig/ipchains**.
- b. In the Editor, scroll down to the last line ending with "REJECT"
- c. Add the following line **-A input -s 192.168.1.151 -d 0/0 -p udp -j ACCEPT**.
- d. Press ESC and type **:wq!** to write and quit the changes.
- e. Run **vi sysconfig/ipchains** again and verify that the line:  
**-A input -s 192.168.1.151 -d 0/0 -p udp -j ACCEPT** is there. To find it quickly, type the following: **cat sysconfig/ipchains** from the `/etc#` prompt.
- f. Reboot the system for the new setting to take effect.
- g. Go on to Step 6.

**Option 3**

- a. From the `/etc#` prompt, run **vi sysconfig/ipchains**.
  - b. In the Editor, scroll down to the last line ending with "REJECT"
  - c. Add the following line **-A input -s 192.168.1.151 -d 0/0 -p udp -j ACCEPT**.
  - d. Press ESC and type **:wq!** to write and quit the changes.
  - e. Without rebooting, go on to Step 6.
6. At the `/root#` prompt, run the following command:  
**mount -t nfs /192.168.1.151:/mnt/share /mnt/cs2**  
(“cs2” is the mount point in this example only)
  7. Once you have successfully mounted the ConnectStor II to your mount point you can access folders created on the ConnectStor II.

# Chapter 5: File Sharing Guidelines

## *Microsoft Network (over TCP/IP or NetBEUI)*

### Connection

Open the button Neighborhood on Desktop, and open the Workgroup to which the ConnectStor II belongs. You will see the Name of the ConnectStor II.

Use the function Find->Computer at Start Menu and type in the Name of ConnectStor II to search. If ConnectStor II and your computer have set up the "WINS Server Address", you can use the IP address of the ConnectStor II to search.

When you have found the ConnectStor II, open it to make your connection.

### Storage/File Sharing

When you connect to ConnectStor II you will have one of two levels of access:

- Supervisor: The administrator's account.
- User: The normal user's account.

On the ConnectStor II, you may see a number of folders, each with specific access permissions assigned to it:

**Home** – Each User has full access-rights to his Home folder. Guests do not have a Home folder.

**Read & Write** – Any User can create/delete/modify data that he created in this folder.

**UserMode->ReadShare** – Any specified User can create/delete/modify data that he created in this folder.

**UserMode->WriteShare** – Any specified User can create/delete/modify any of the data in this folder.

**ReadOnly** – A User can only read the data in this folder.

**NoAccess** – No User can access data in this folder.

As a User, you will have access rights on the ConnectStor II, which will vary depending on which folders you attempt to access.

## ***UNIX/Linux Network (over TCP/IP)***

### **Connection**

Note: If you run a Firewall service on your computer, verify that it can accept the RPC packets. If it cannot accept the RPC packets, disable the Firewall.

1. If you use the DNS on your computer, use the DNS name of your computer as the “HostName” in the ConnectStor II Configuration Menu “Unix (NFS) -> Create”.
2. Login as “root” and make a directory for the mount-point, such as “CS-II”.
3. Use the command “mount *ConnectStor II's IP*: /mnt/share *CS-II*” to make a mount to ConnectStor II.

### **Storage/File Sharing**

When system administrator “root” has set up the mount to ConnectStor II, you will see two directories under the mount-point.

**Users** – Users created by Configuration Menu on ConnectStor II have their “home” directories in this directory.

**Folders** – Folders created by Configuration Menu on ConnectStor II are in this directory.

The administrator must set your UID (Unix/Linux User ID) in Configuration Menu “User Options->Create User”, and then you login as “Your Account” in your Unix/Linux system.

**Home directory** – Change path to mount-point/users, you can go into your home directory, and have full access-permissions in it.

**Folders** – Change path to mount-point/folders, you will see all types of folder created on ConnectStor II.

Set Folder Permissions as follows:

**Read & Write** – Access to this folder will be the same as a directory permission drwxrwxrwx on Unix/Linux system with full access to all users.

**ReadOnly** – Access to this folder will be the same as a directory permission drwxr-xr-x on Unix/Linux system with full access to the owner and read/execute access to other users.

**NoAccess** – Access to this folder will be the same as a directory permission drwx----- on Unix/Linux system with full access to the owner but no access to other users.

The Root Account in your Unix/Linux system is mapped as a Guest Account on the ConnectStor II.

A group of users need the disk space to share (read & write) their data (users can modify data created by others).

- In the Configuration Menu choose “File Sharing->Create Folders” to create a folder named “ShareUserGroupWrite” with permission “User Mode-> WriteShare”.
- Add the users who can access the folder to the list of “Valid User.” Apply a Storage Limit for each user if necessary.

## User Access Sharing Model: An Example

### *Users:*

- “supervisor”
- “peter”
- “kevin”
- “tony”

### *Folders:*

- “ShareForAll”
- “ShareForGroup” with Valid User [supervisor, peter].
- “SharePublic”
- “ShareUserGroupRead” with Valid User [peter, tony].
- “ShareUserGroupWrite” with Valid User [kevin, tony].

### *Access results for ConnectStor II’s users:*

- User “supervisor” from a Windows Network login, sees folders:
  - “supervisor” (home) ..... permitted
  - “ShareForAll” ..... permitted
  - “ShareForGroup” ..... permitted
  - “SharePublic” ..... permitted
  - “ShareUserGroupRead” ..... denied
  - “ShareUserGroupWrite” ..... denied
- User “peter” from a Windows Network login, sees folders:
  - “peter” (home)..... permitted
  - “ShareForAll” ..... permitted
  - “ShareForGroup” ..... permitted
  - “SharePublic” ..... permitted
  - “ShareUserGroupRead” ..... permitted
  - “ShareUserGroupWrite” ..... denied

A group of users need the disk space to share (read & write) their data (users can modify data created by others).

- In the Configuration Menu choose “File Sharing->Create Folders” to create a folder named “ShareUserGroupWrite” with permission “User Mode-> WriteShare”.
- Add the users who can access the folder to the list of “Valid User.” Apply a Storage Limit for each user if necessary.

## User Access Sharing Model: An Example

### *Users:*

- “supervisor”
- “peter”
- “kevin”
- “tony”

### *Folders:*

- “ShareForAll”
- “ShareForGroup” with Valid User [supervisor, peter].
- “SharePublic”
- “ShareUserGroupRead” with Valid User [peter, tony].
- “ShareUserGroupWrite” with Valid User [kevin, tony].

### *Access results for ConnectStor II’s users:*

- User “supervisor” from a Windows Network login, sees folders:
  - “supervisor” (home) ..... permitted
  - “ShareForAll” ..... permitted
  - “ShareForGroup” ..... permitted
  - “SharePublic” ..... permitted
  - “ShareUserGroupRead” ..... denied
  - “ShareUserGroupWrite” ..... denied
- User “peter” from a Windows Network login, sees folders:
  - “peter” (home)..... permitted
  - “ShareForAll” ..... permitted
  - “ShareForGroup” ..... permitted
  - “SharePublic” ..... permitted
  - “ShareUserGroupRead” ..... permitted
  - “ShareUserGroupWrite” ..... denied



User “peter” from a NFS mount (UnixHost1), sees directories under mount-point\:

users\supervisor.....	denied
users\peter (home).....	permitted
users\kevin.....	denied
users\tony .....	denied
folders\ShareForAll.....	permitted
folders\SharePublic .....	permitted

- c. User “kevin” from a Windows Network login, sees folders:

“kevin” (home).....	permitted
“ShareForAll” .....	permitted
“ShareForGroup” .....	denied
“SharePublic” .....	permitted
“ShareUserGroupRead” .....	denied
“ShareUserGroupWrite” .....	permitted

User “kevin” from a NFS mount (UnixHost1), sees directories under mount-point\:

users\supervisor.....	denied
users\peter .....	denied
users\kevin (home) .....	permitted
users\tony .....	denied
folders\ShareForAll.....	permitted
folders\SharePublic .....	permitted

- d. User “tony” from a Microsoft Network login, sees folders:

“tony” (home).....	permitted
“ShareForAll” .....	permitted
“ShareForGroup” .....	denied
“SharePublic” .....	permitted
“ShareUserGroupRead” .....	permitted
“ShareUserGroupWrite” .....	permitted

User “tony” from a NFS mount (UnixHost2), sees directories under mount-point\:

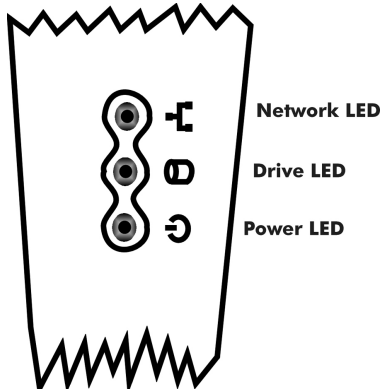
users\supervisor.....	denied
users\peter .....	denied
users\kevin.....	denied
users\tony (home).....	permitted
folders\ShareForAll.....	permitted
folders\SharePublic .....	permitted

# *NOTES*

# Chapter 6: Troubleshooting

## Using the Front Panel Display

The LED lights on the front panel of ConnectStor II provide cues for proper activity of the unit. The front panel includes the following as shown below:



**Network LED:** is Green blinking or off indicating normal activity.

**Drive LED:** is Amber and blinks to show hard drive activity.

**Power LED:** is Green when lit and indicates unit is powered on and other status messages as shown below:

### Power Status LED Messages

Operation	Power LED display	Status
Power on	Steady ON	Normal
System Loading	Steady OFF	Normal
Bootup	Steady ON	Normal
Request an IP	Single blinking light	Normal
System Starting	Double blinking light	Normal
System Ready	Steady ON	Normal
System Halt	Triple blinking light	Special
Disk Error	4x blinking light	Error
RAID Error	5x blinking light	Error

### ***RAID Error Message***

If the Power Status LED indicates a RAID Error (repeatedly blinks 5x), it means that you have 2 drives in the ConnectStor II unit but they have different RAID settings. For example, initially the ConnectStor II unit had 2 drives set as RAID 1, then one of them failed. If you replace the failed drive with another drive which had previously been configured as RAID 0, then your ConnectStor II unit contains 2 drives with different RAID settings. Perform the following diagnostic steps:

1. From a supported web browser, use IPAssign utility to enter a new IP.
2. Login to the ConnectStor II home page with “supervisor”.
3. Use “password” as login password.
4. Re-Configure your RAID setting.
5. If the RAID Error message continues, the unit may be at fault. Call Promise technical support (see Appendix A: Contacting Technical Support).

### ***Disk Error Message***

If the Power Status LED indicates a Disk Error (repeatedly blinks 4x), there might be 2 possible errors:

- There is no disk is in the ConnectStor II unit.
- One or both drives in the ConnectStor II unit have failed.

Perform the following diagnostic steps:

1. Open the chassis. Identify the physical location of Drives 1 and 2 (see page 9).
2. First check the IDE cable and power supply cable going to the indicated drive and make sure they are securely connected.
3. If drive cabling seems to be secure, you will need to replace the failed drive with a drive of same or larger capacity.

## ***General Troubleshooting Issues***

Please read this section if you are having difficulty with the ConnectStor II installation or configuration. If you still need help, contact technical support at [www.promise.com](http://www.promise.com) or see Appendix B for worldwide tech support contact information.

### **TCP/IP Is Not Enabled in Windows 95/98/ME**

ConnectStor II works using TCP/IP protocol only. You will need your Microsoft Windows installation CD-ROM if the necessary drivers have not been installed on your hard drive. Follow this procedure to enable TCP/IP on your computer:

1. Close all other programs and applications.
2. Click on **Start**, select **Settings**, then select **Control Panel**. Click on the **Network** icon. From the **Configuration** tab, choose **Add**.
3. Click on **Protocol** and then click **Add**. Your system will build an information database, which may take a few minutes.
4. Choose **Microsoft** under **Manufacturers**. Choose **TCP/IP** under **Network Protocols**. You may need to scroll down the list to find it; it should be the last item. Click OK.
5. Click on the Network Application window.
6. If your computer asks for the Microsoft Windows installation CD, insert it and click OK.
7. Once completed, Windows will ask if it can reboot your computer. Click Yes.
8. After the reboot is done, you are now ready to configure ConnectStor II. See page 15.

### **Cannot Find Workgroups in Windows 95/98/ME**

To find your Workgroup, follow this procedure:

1. Right-click on **Network Neighborhood**. Select **Properties** from the pop-up menu. The Network dialog box will appear.
2. Select the **Identification** tab. Your current workgroup appears in the **Workgroup** field. Click OK to exit.

## **Cannot See ConnectStor II Over Network**

1. Make sure the ConnectStor II unit is connected to a power source and the Power light is on. If necessary, check the power connection at both ends. Plug in the unit and power it on.
2. If the unit is powered on, check the Network light. It should be on. If not, check your network cable connection. Use the cable that came with the unit. Insert the cable into Ethernet connector located on the back of ConnectStor II unit. Insert the other end into 10Base-T/100Base-TX Ethernet network connection on your network.
3. If the Network light still does not go on, be sure you are hooked into a hub or switch. Do not connect the cable directly to your computer.
4. If both ends are connected and the light is still not lit, you may need a new cable, hub or switch.
5. If cabling or switch hardware is NOT the problem, you will need to reset the unit's IP address through the COM1 port.
  - a. Connect a standard null-modem cable to COM1 of ConnectStor II and any COM port of a Windows-based PC.
  - b. Run a terminal program (like HyperTerminal built in to Windows) using the settings 9600, no parity, 8, 1).
  - c. Press any key to prompt the opening "Login" screen. Type "supervisor" and the current password to access the text-based Configuration Menu.
  - d. Next, select IP Assignment and set to Dynamic IP addressing -- this will allow you to reboot from menu.

## **Cannot Find ConnectStor II in Network Neighborhood**

1. Try all steps in the "Cannot Find the ConnectStor II Unit" section (above). If your unit still does not appear, go to step 2.
2. Verify that your ConnectStor II unit is in the same workgroup as your computer. To do this, go to Network Neighborhood and double-click on Entire Network. Look for your ConnectStor II's workgroup name. If it is there, double-click on your ConnectStor II's name, and it should appear.
3. If your ConnectStor II unit is still not there, click on Start, select Find/Search, then select Computer. Type in your ConnectStor II Server name (see page 19). Click the Find/Search button. Your computer will search for the ConnectStor II by name, and if successful, display it. Double click on the unit's name and your folders will appear.
4. If you are still unable to find your ConnectStor II, check the status lights on the front of the cabinet. See "Using the Front Panel Display" on page 69.

## Problems Mounting ConnectStore II on UNIX/Linux

If you are having problems mounting ConnectStor II and you see “RPC TIMEOUT” or “Permission Denied” error messages from the UNIX/Linux Host, do the following:

- Verify the Server Name and IP address of the ConnectStor II. Then check the **sysconfig/ipchains** file and the **etc/hosts** file to make sure that the IP and the Server Name are accurate. In some instances when running a DHCP the dynamic IP address may change, causing the problem.
- Verify the Host Name and IP address of the Linux Host.

Then check the Unix (NFS) Current Settings to make sure that the IP and the Host Name are accurate. In some instances when running a DHCP the dynamic IP address may change, causing the problem.

- Sometimes the server appears to be refusing the clients access, even though the client is listed in the **etc/hosts** or **etc/exports** file. Typically, this happens because the server takes the IP address of the client connecting to it and resolves that address to the fully qualified domain name (FQDN), but the host name listed in the **etc/hosts** or **etc/exports** file is not qualified. (For example, the server thinks that the client host name is **Raid.promise.com**, but in the **etc/hosts** or **etc/exports** file it is just listed as **Raid**.)
- Another common problem is that the server’s perception of the Host Name / IP address pairing is incorrect. This can occur because of an error in the **etc/hosts** file or in the **DNS tables**. Ask your system administrator to verify that the pairing is correct.

# *NOTES*



## **Appendix A: *Limited Warranty***

Promise Technology, Inc. (“Promise”) warrants that for two (2) years from the time of the delivery of the product to the original end user:

- a) the product will conform to Promise’s specifications;
- b) the product will be free from defects in material and workmanship under normal use and service.

This warranty:

- a) applies only to products which are new and in cartons on the date of purchase;
- b) is not transferable;
- c) is valid only when accompanied by a copy of the original purchase invoice.

This warranty shall not apply to defects resulting from:

- a) improper or inadequate maintenance, or unauthorized modification(s), performed by the end user;
- b) operation outside the environmental specifications for the product;
- c) accident, misuse, negligence, misapplication, abuse, natural or personal disaster, or maintenance by anyone other than a Promise or a Promise-authorized service center.

### **Disclaimer of other warranties**

This warranty covers only parts and labor, and excludes coverage on software items as expressly set above.

Except as expressly set forth above, Promise disclaims any warranties, expressed or implied, by statute or otherwise, regarding the product, including, without limitation, any warranties for fitness for any purpose, quality, merchantability, non-infringement, or otherwise. Promise makes no warranty or representation concerning the suitability of any product for use with any other item. You assume full responsibility for selecting products and for ensuring that the products selected are compatible and appropriate for use with other goods with which they will be used.

Promise does not warrant that any product is free from errors or that it will interface without problems with your computer system. It is your responsibility to back up or otherwise save important data before installing any product and continue to back up your important data regularly.

No other document, statement or representation may be relied on to vary the terms of this limited warranty.

Promise's sole responsibility with respect to any product is to do one of the following:

- a. replace the product with a conforming unit of the same or superior product;
- b. repair the product;
- c. recover the product and refund the purchase price for the product.

Promise shall not be liable for the cost of procuring substitute goods, services, lost profits, unrealized savings, equipment damage, costs of recovering, reprogramming, or reproducing of programs or data stored in or used with the products, or for any other general, special, consequential, indirect, incidental, or punitive damages, whether in contract, tort, or otherwise, notwithstanding the failure of the essential purpose of the foregoing remedy and regardless of whether Promise has been advised of the possibility of such damages. Promise is not an insurer. If you desire insurance against such damage, you must obtain insurance from another party.

Some states do not allow the exclusion or limitation of incidental or consequential damages for consumer products, so the above limitation may not apply to you.

This warranty gives specific legal rights, and you may also have other rights which vary from state to state. This limited warranty is governed by the State of California.

## **Your Responsibilities**

You are responsible for determining whether the product is appropriate for your use and will interface with your equipment without malfunction or damage. You are also responsible for backing up your data before installing any product and for regularly backing up your data after installing the product. Promise is not liable for any damage to equipment or data loss resulting from the use of any product.

# ***Returning Product for Repair***

If you suspect a product is not working properly, or if you have any questions about your product, contact our Technical Support Staff through one of our Technical Services, making sure to provide the following information:

- Product model and serial number (required);
- Return shipping address;
- Daytime phone number;
- Description of the problem;
- Copy of the original purchase invoice.

The technician will assist you in determining whether the product requires repair. If the product needs repair, the Technical Support Department will issue an RMA (Return Merchandise Authorization) number.

Return **ONLY** the specific product covered by the warranty (do not ship cables, manuals, diskettes, etc.), with a copy of your proof of purchase to:

- |                  |   |
|------------------|---|
| USA and Canada:  | Promise Technology, Inc.<br>Customer Service Dept.<br>Attn.: RMA # _____<br>1745 McCandless Drive<br>Milpitas, CA 95035 |
| Other Countries: | Return the product to your dealer or retailer.<br>Contact them for instructions before shipping the product.            |

You must follow the packaging guidelines for returning products:

- Use the original shipping carton and packaging
- Include a summary of the product's problem(s)
- Write an attention line on the box with the RMA number
- Include a copy of proof of purchase

You are responsible for the cost of insurance and shipment of the product to Promise. Note that damage incurred due to improper transport or packaging is not covered under the Limited Warranty.

When repairing returned product(s), Promise may replace defective parts with new or reconditioned parts, or replace the entire unit with a new or reconditioned unit. In the event of a replacement, the replacement unit will be under warranty for the remainder of the original warranty term from purchase date, or 30 days, whichever is longer.

Promise will pay for standard return shipping charges only. You will be required to pay for any additional shipping options (such as express shipping).

# *NOTES*

## Appendix B: Contacting Promise Support

Promise Technical Support provides several support options for Promise users to access information and updates. We encourage you to use one of our electronic services, which provide product information updates for the most efficient service and support.

If you decide to contact us, please have the following information available:

Product model and serial number

BIOS and driver version numbers

A description of the problem / situation

System configuration information, including: motherboard and CPU type, hard drive model(s), IDE/ATAPI drives & devices, and other controllers.

### Technical Support Services

Promise Online <sup>TM</sup> Web Site	<a href="http://www.promise.com">http://www.promise.com</a> (tech documents, drivers, utilities, etc.)
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#### USA Tech Support Center

E-mail Support	<a href="mailto:support@promise.com">support@promise.com</a>
Fax Technical Support	(408) 228-6401 Attention: Technical Support
Phone Technical Support	(408) 228-6402 7:30-5:30pm M-F Pacific Standard Time
If you wish to write us for support:	Promise Technology, Inc. Attn: Technical Support 1745 McCandless Drive Milpitas, CA 95035 USA

**Promise Europe**

E-mail Support	<a href="mailto:support@promise.nl">support@promise.nl</a>
Fax Technical Support	+31 (0)40 256 9463 Attention: Technical Support
Phone Technical Support	+31 (0)40 235 2600 8:30-5:00pm The Netherlands Time
If you wish to write us for support:	Promise Technology Europe B.V. Attn: Technical Support Luchthavenweg 81-125 5657 EA Eindhoven, The Netherlands

**Promise Taiwan**

E-mail Support	<a href="mailto:support@promise.com.tw">support@promise.com.tw</a>
Fax Technical Support	+886 3 578 23 90 Attention: Technical Support
Phone Technical Support	+886 3 578 23 95 (ext. 8870) 9:00-6:00pm Taiwan Time
If you wish to write us for support:	Promise Technology, Inc. Attn: Technical Support 2F, No. 30, Industry E. Rd. IX, Science-Based Industrial Park, Hsinchu, Taiwan, R.O.C.

**Promise China**

E-mail Support	<a href="mailto:support-china@promise.com">support-china@promise.com</a>
Fax Technical Support	+86 (0) 10 6872 3940 Attention: Technical Support
Phone Technical Support	+86 (0) 10 6872 3941 9:00-6:00pm China Time
If you wish to write us for support:	Promise Technology China Attn: Technical Support Room 3213, No. 11 South Zhong Guan Cun Street Hai Dian District Beijing 100081 P.R. China